ANATOMIA BRITANNICA:

A

SYSTEM OF ANATOMY.

ILLUSTRATED BY UPWARDS OF

THREE HUNDRED COPPERPLATES,

FROM

THE MOST CELEBRATED AUTHORS

IN

EUROPE.

IN SIX PARTS.

BY ANDREW BELL, F. S. A. S.

ENGRAVER TO HIS ROYAL HIGHNESS THE PRINCE OF WALES.

THE WORK APPROVED OF BY

DR ALEX. MONRO, PROFESSOR OF ANATOMY, &C. IN THE UNIVERSITY OF EDINBURGH.

AND CONDUCTED

BY *ANDREW FYFE*, HIS ASSISTANT.

DUM AUDES ARDUA VINCES.

PARTS I. & II.

EDINBURGH:

PRINTED FOR ANDREW BELL, ENGRAVER.

M,DCC,XCVIII.

TABLES

OF THE

SKELETON

AND

MUSCLES

OF THE

HUMAN BODY,

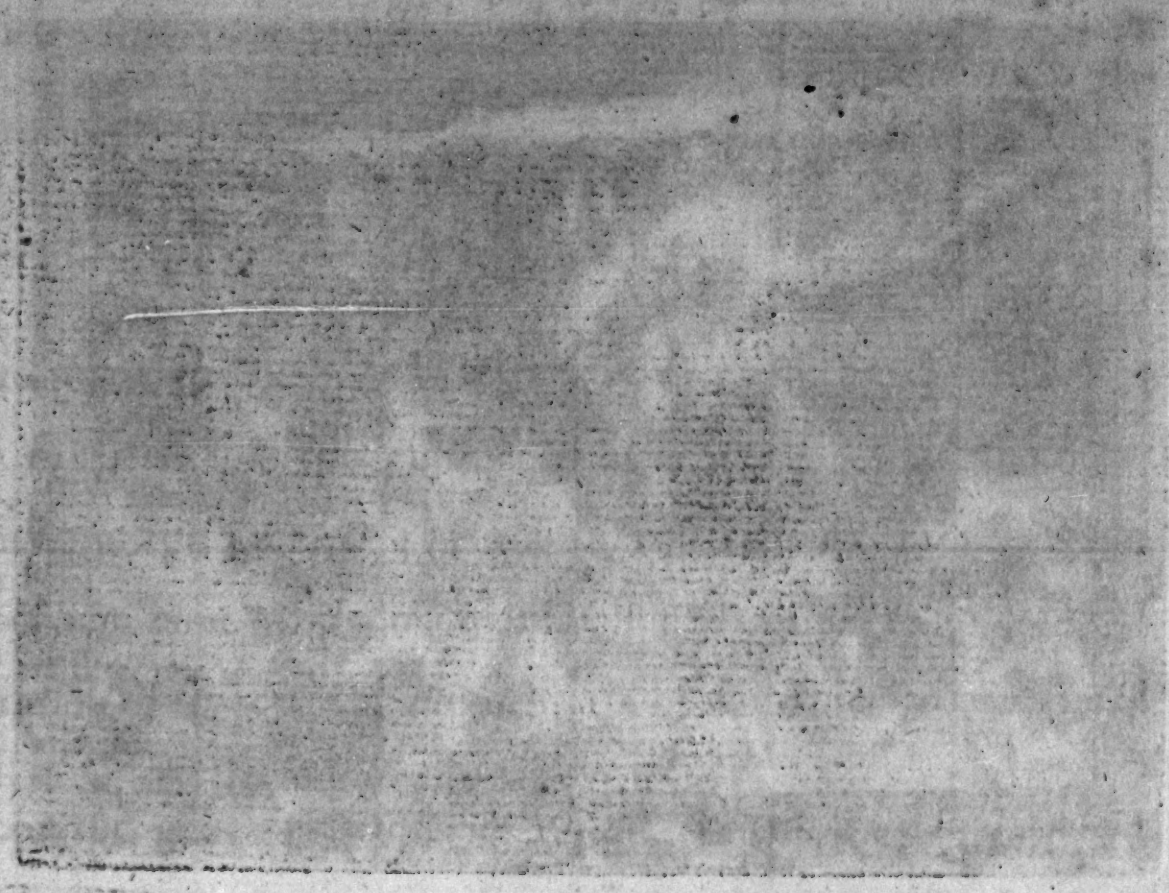
BY

BERNARD SIEGFRIED ALBINUS.

Tranſlated from the LATIN.

EDINBURGH:
Printed by BALFOUR & SMELLIE,
For ANDREW BELL Engraver.

M,DCC,LXXVII.



TO

ALEXANDER MONRO, M. D.

PROFESSOR OF MEDICINE AND OF ANATOMY

IN THE

UNIVERSITY of EDINBURGH.

SIR,

YOU have long filled the Anatomical Chair of this Univerſity with an ability and a reputation that have done honour to your country. Your deſire to promote, on every occaſion, the inſtruction of your pupils is univerſally acknowledged. A work of this kind, therefore, if properly executed, muſt naturally obtain your patronage and protection.

IT was not without diffidence that I was prevailed upon to engage in an undertaking which requires ſo much labour and accuracy: But the ſpecimens I laid before you having been ſo fortunate as to receive your approbation, this circumſtance encouraged me to proceed in publiſhing the Tables of the celebrated ALBINUS upon the Bones and Muſcles of the Human Body.

THE London Edition of this elegant and maſterly performance is now ſcarce; and the Plates have become faint by frequent impreſſions. From theſe conſiderations, and others mentioned in the Preface, I flatter myſelf, that the preſent Edition will facilitate the ſtudy of Anatomy, the knowledge of which is ſo eſſentially neceſſary to all who deſign to follow the practice of Phyſic or of Surgery. I am,

SIR,

With the greateſt Reſpect,

Your moſt obedient

And moſt humble Servant,

ANDREW BELL.

EDINBURGH, FEB. 17. 1777.

PREFACE.

THE parts of which the human body is compoſed, are extremely numerous and complicated. It is, perhaps, this circumſtance alone which has deterred any ſingle perſon from attempting to publiſh a ſet of Tables that ſhould comprehend exact delineations of the whole.

THE Tables of Euſtachius are the moſt extenſive that have hitherto appeared: And, if he had been equally ſkilled in the arts of deſigning and engraving *, as he was accompliſhed in the ſcience of anatomy, Albinus would never, perhaps, have beſtowed ſo much time, labour, and expence in travelling over the ſame ground.

THOUGH Albinus was a compleat maſter of the ſubject, and though he was actuated by the moſt ardent deſire of accompliſhing his favourite deſign, and had the aſſiſtance of an able artiſt; yet he laid aſide entirely the labour of ſeveral years, becauſe the execution did not anſwer the ideas he had conceived. He ſet out with planning the muſcles; and was very anxious to have them exactly expreſſed in the figures, not ſingly alone, but in the order they lie with reſpect to each other. But, as many of the muſcles are ſituated behind others, it became neceſſary to divide them into certain orders or layers; the firſt of which ſhould contain thoſe that lie immediately under the integuments; the ſecond, thoſe next the former; and ſo of the reſt. He was therefore deſirous that the members ſhould not only be kept in the ſame poſition, while the figures of the different layers were drawing, but that theſe layers ſhould be exactly continued into one another, and that, by this means, they might all appear in the ſame manner as they do in the body when placed in the ſame light and attitude.

BUT, though the views drawn according to this plan were executed with much dexterity, Albinus found it impoſſible to point out to the engraver, the ſeveral ſizes, directions, inſertions, and connections of the internal muſcles, in ſuch a manner, that they could be diſtinctly expreſſed in the drawings. This circumſtance obliged him to have recourſe to another method, which he candidly acknowledges muſt have been that which Euſtachius had followed: And, about the end of the year 1725, he prepared a male ſkeleton of full growth and firmneſs, and which diſcovered the ſigns of elegance, ſtrength, and agility. After cleaning the bones, he allowed the ligaments which unite them to remain, in order to keep all the parts in their proper ſituations. And, having procured an iron tripod, for the purpoſe of ſuſpending and fixing the ſkeleton, he next tied a cord round the upper part of the ſpine, and, paſſing the end of it through a ring fixed in the ceiling, he raiſed the trunk of the ſkeleton in ſuch a manner as to let the lower end of it reſt upon the back limb of the tripod; and then fixed the rope to a hook in the wall. By the aſſiſtance of other ropes, in various directions, the poſition of the ſkeleton was adjuſted from a lean naked man ſtanding in that natural and elegant attitude in which the tables of the ſkeleton are repreſented.

HIS next care, after finiſhing the poſture of the ſkeleton, was to have an exact figure of it drawn. For this purpoſe, he provided a wooden quadrate, having the intermediate ſpace as large as the ſkeleton, and the whole equally divided into little ſquares, all of the ſame ſize, by means of ſmall cords ſtretched out between them. After fixing the proper point of view, the engraver directed his eye to the ſkeleton through a ſmall hole: And, his paper being divided into the ſame number of ſquares with the quadrate, ſuch parts of the ſkeleton as appeared through the ſquares of the quadrate, he drew in the correſpondent ſquares upon the paper. By this method, the drawing was kept in exact proportion with the original; and the engraver, in the ſpace of three months, finiſhed the fore, the back, and the ſide views of the ſkeleton.

IN theſe three figures, the poſture of the ſkeleton, together with the poſition and connection of all the bones, were accurately expreſſed: But the ligaments that remained on the joints, though they had been cut, in order to obtain a view of thoſe parts of the bones which they concealed, prevented the drawings from being finiſhed till the bones ſhould be cleaned. He therefore took down the ſkeleton, and had all the bones perfectly cleaned: But he deferred the finiſhing of his figures, till he had each of the bones ſeparately engraved of the natural ſize, which employed him till the year 1733, when he returned to the figures. The engraver having then examined all the bones according to their poſition in the figures, ſupplied every deficiency he could obſerve.

THE drawings being thus compleated, Albinus, ſtimulated both by an affection to the work, and an earneſt deſire to improve anatomy, propoſed, as ſoon as they ſhould be engraved, to try if he could perfect what he had conceived, by adding the muſcles to them. Neither was he unprovided for this attempt; as, from the time that the firſt draughts of the ſkeleton were made, he, by the conſent of his pupils, every year traced the muſcles carefully, in order to obſerve more particularly their poſition, connection, figure, thickneſs, and ſubſtance, and carefully preſerved all of them he could in a proper liquor, together with the bones, and other parts to which they are connected. Theſe were all choſen from the beſt ſubjects; ſo that, in proceſs of time, having collected a great number of detached obſervations, he digeſted and compoſed from them his hiſtory of the Muſcles; ſince the publication of which, he has added many improvements that were ſuggeſted by his frequent diſſections.

THUS prepared, and animated with firmer reſolution, and more ſanguine hopes, he began to add the muſcles to the figures of the ſkeleton in the year 1738. From a ſubject furniſhed with large and thick muſcles, and upon a faint impreſſion of the outline of the figure of the ſkeleton, he had drawn the external layer of the muſcles of the trunk, neck, and extremities; thoſe that were ſituated below them were taken from other ſubjects as like the firſt as poſſible; and the whole was adapted to the figure of the ſkeleton. But, in delineating the external layers of the muſcles, it was difficult to diſcover their proper poſition with reſpect to the ſkeleton, becauſe moſt part of it was covered by them. Although much care and attention were exerted; yet, as the internal layers, by the ſkeleton's being more expoſed, ſhowed what was defective, the external layers were afterwards, by this means, corrected.

* Euſtachius both drew and engraved his Tables.

THERE are two kinds of tables in which the whole work is comprehended: The firſt contains the general connection and diſpoſition of the muſcles over the whole body; and the other contains the figures of each muſcle when ſeparated from the reſt. The firſt ſet of tables exhibits four fore, and as many back views, and a ſide view of the whole body. In the fore and back views, all the different layers of the muſcles are ſucceſſively delineated; and, although, from theſe the ſituation of the muſcles on the ſides may be tolerably well underſtood, yet he has added a ſide view of the external layer, that his ſyſtem might appear full and diſtinct. He has likewiſe delineated, apart, ſome claſſes of muſcles, ſituated in the cavities of the orbit, under the jaws, about the pelvis, and in the ſoles of the feet, as theſe could not be properly expoſed in the views of the whole body.

THE figures of the ſingle muſcles are conſiderably larger than thoſe of the general tables, by which means they repreſent every part more fully and accurately.

HAVING thus given a ſhort ſketch of the nature of the work, and of the labour and attention with which it was executed, we ſhall conclude with a few remarks concerning the preſent edition.

1. THE former editions of Albinus are of ſuch an enormous ſize, that they can neither be eaſily arranged in a library, nor read without ſtanding and ſtooping. To obviate this inconveniency, after perceiving that all the parts and characters could be expreſſed with equal diſtinctneſs, the preſent ſize was adopted.

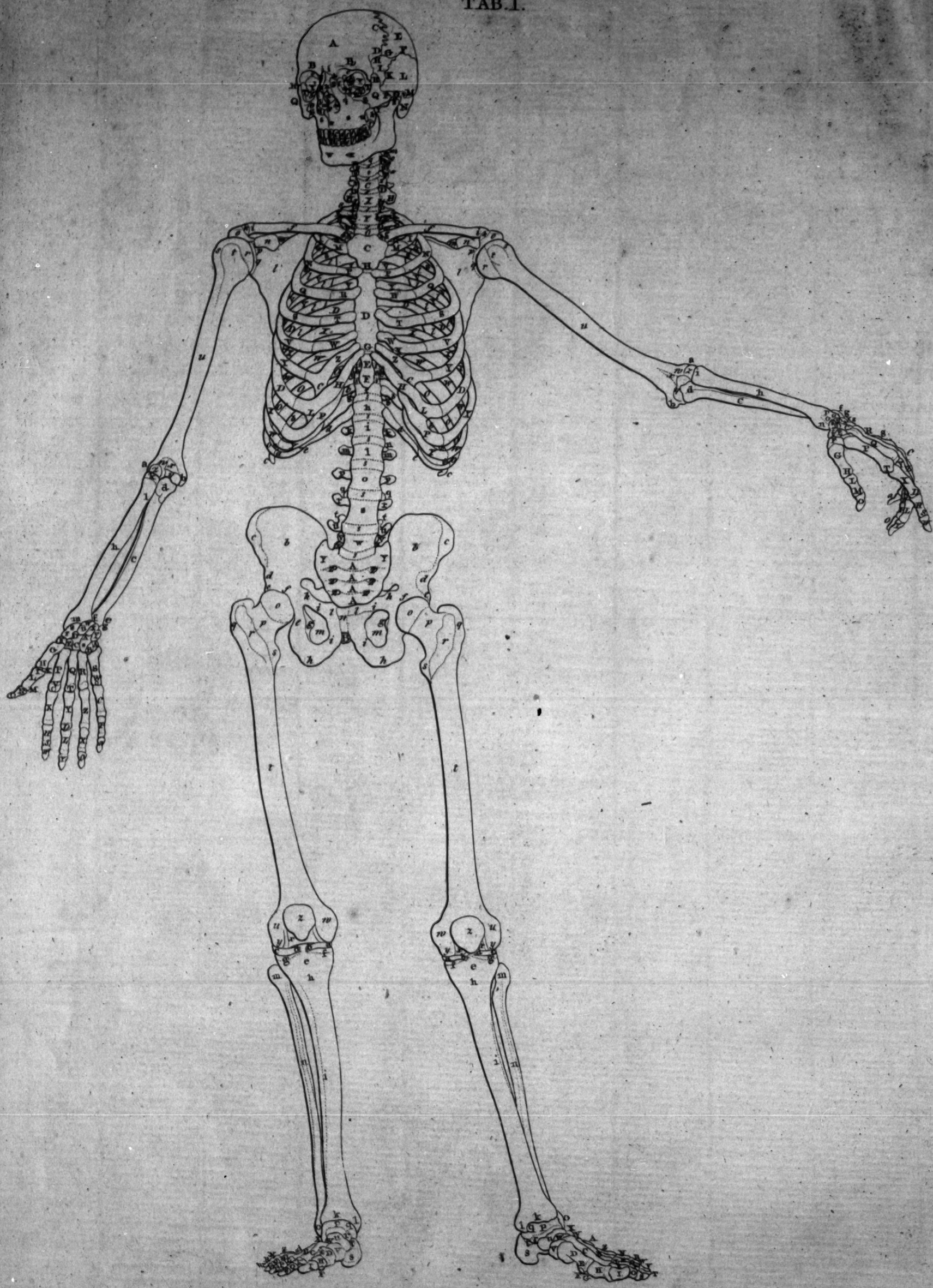
2. IN the London edition, as well as in that publiſhed by Albinus himſelf, the ſmall Roman characters are employed in the explanations, and, to correſpond with them, the ſmall Italic letters are engraved on the plates; which is a great embaraſſment to the ſtudent. This impropriety we have avoided, by making the characters in the explanations the ſame with thoſe in the tables. But, in the former editions, a ſtill greater difficulty ariſes from the frequent uſe of the Greek alphabet; many of the letters of which are ſo inaccurately repreſented in the engraving, that, though the reader ſhould have a familiar acquaintance with the Greek, unleſs he be likewiſe maſter of the ſubject, he will be often at a loſs to trace out the characters he is in queſt of. Tho' theſe faults might have been corrected in this edition, it was thought more expedient, for the eaſe of thoſe who are not verſant in the Greek, to ſubſtitute Italic capitals in the place of the Greek capitals, and ſmall Italic letters in place of the ſmall Greek.

To render this edition of ſtill more utility, we have added to the deſcriptions of the ſeparate muſcles, a ſhort account of their uſes in the ſyſtem, in hopes that the giving reaſons for the particular figure, ſituations, and connections of each muſcle will be both more alluring to the ſtudent, and leave a deeper impreſſion of them on his mind.

THE outlines are likewiſe engraved in a bolder manner than in the original, in order to make the expreſſion of the different parts more diſtinct and apparent.

N. B. When the work is finiſhed, for the more ready conſulting the tables, the explanations will likewiſe be printed off in an octavo ſize, and ſold ſeparately, at a moderate price.

TAB. I.



A Bell Sculp.

THE

First Anatomical Table

OF THE

HUMAN SKELETON

EXPLAINED.

THIS first Table contains chiefly a front view or figure of the Human Skeleton; whereunto are added some of the Ligaments and Cartilages, without which the connection or joints of the Bones would be interrupted.

In the Head.

A The os frontis, or forehead-bone.

B B The ſuperciliar foramina or holes, tranſmitting each a ſmall artery and nerve out of the orbit, to the frontal muſcles: The left of theſe holes is entire; but the right is partly abſent, forming only a kind of notch.

C D The coronal ſuture. C the part of it which makes a ſerrated or true ſuture: D the part which is ſquamoſe or like a fiſh-ſcale.

E The left parietal bone.

F A ſquamoſe or ſcale-like ſuture, which is formed by the conjunction of the parietal with the temporal bone.

G A ſquamoſe ſuture, formed by a meeting of the parietal bone with the largeſt lateral proceſs of the multiform or ſphenoidal bone.

H A ſquamoſe ſuture, formed by a conjunction of the os frontis with the largeſt lateral proceſs of the multiform bone.

I The largeſt lateral proceſs of the multiform or ſphenoidal bone.

K A ſuture common to the os ſquamoſum or temporale with the largeſt lateral proceſs of the multiform bone.

L The ſquamoſe or ſcale-like part of the temporal bone.

M The bony entrance or paſſage of the ear.

N The maſtoide or mammillary proceſs of the temporal bone.

O Zygomatic or jugal proceſs of the temporal bone.

P A ſuture common to the jugal or cheek bone, with the zygomatic proceſs of the temporal bone.

Q Q The oſſa jugalia, or cheek bones.

R R Sutures which conjoin the frontal bone with the cheek bones, near the ends of the eye brows.

S S Sutures formed by the union of the cheek bones with the upper jaw bones.

T T Parts of the cheek bones which help to form the orbits or ſockets for the eyes.

Betwixt T and W is a ſuture formed in the orbit by a conjunction of the cheek bone with the upper jaw bone.

Betwixt T and c: T and c appear ſutures in common to the cheek bones with the forehead-bone, within the orbits or holes for the eyes.

Betwixt T and Y: T and Y appear ſutures joining the cheek bones to the largeſt lateral proceſs of the multiform bone.

V V A channel appearing in the bottom of the orbits or holes of the eyes, which opens to the cheek (at t) and tranſmits the upper maxillary branch of the guſtatory nerve to the lips, palate, &c.

W X Part of the upper jaw bone belonging to the bottom of the orbit of the eye.

Betwixt W and X appears a ſuture running by the channel V, and extended along the bottom of the orbit of the eye. This ſuture paſſing over the lower margin of the orbit is extended towards the opening the ſaid channel (at t) in the cheek.

Between X and d is a ſuture common to the upper jaw bone and the os planum (d) of the multiform bone.

Between X and e is a ſuture common to the upper jaw bone and the os unguis. (e f)

Y Y The orbitary ſurfaces of the largeſt lateral proceſſes of the multiform or ſphenoidal bone.

Betwixt Y and c: Y and c appear ſutures common to the largeſt lateral proceſſes of the multiform bone with the frontal bone, in the orbits of the eyes.

Z The foramen lacerum or hole through which the third pair of nerves of the brain, together with the fourth, ſixth, and firſt branch of the fifth pair, paſs out of the ſkull into the orbit for the muſcles of the eye.

a The thin proceſs of the multiform or ſphenoidal bone.

b The hole through which the optic nerve paſſes out of the ſkull into the orbital cavity, accompanied with a branch of the internal carotid artery.

Betwixt a and c appears a ſuture within the orbit, common to the frontal bone with the thin proceſs of the multiform bone.

Between a and d is a ſuture common to the os planum and the thin proceſs of the multiform bone.

c c Parts of the frontal bone belonging to the orbits of the eyes.

Betwixt c and d is a ſuture common to the os planum and frontal bone.

Between c and e f is a ſuture common to the frontal bone with the os unguis.

d The os planum of the multiform bone.

Betwixt d and e is a ſuture common to the os planum with the os unguis.

e f The os unguis; in which f denotes a ſinus or cavity belonging to the naſal canal.

Betwixt f and g is a ſuture common to the os unguis with the naſal proceſs of the upper jaw bone.

g g The naſal proceſſes of the upper jaw bones.

Betwixt g and k: g and k appear ſutures common to the naſal bones with the naſal proceſſes of the upper jaw bones.

h A ſuture common to the frontal bone with the naſal proceſs of the upper jaw bone.

i i Sutures common to the frontal and naſal bones.

k k The oſſa naſi, or bones of the noſe.

Betwixt k and k is a ſuture common to the two naſal bones.

l The interior part of the naſal proceſs of the upper jaw bone, belonging to the cavity of the noſe.

m m The lower turbinated or ſpongy bones.

Betwixt l and m, on the right ſide, is a ſuture formed by the conjunction of the lower ſpongy bone with the upper jaw bone.

n o A thin plate of the ethmoidal or ſieve-like bone, which makes part of the (ſeptum narium) partition of the noſtrils. o the extremity of the ſaid bony plate which joins to the cartilaginous or griſtly part of the partition.

p The os vomer, or plow-ſhare bone.

Betwixt n and p is a kind of ſuture formed by the connection of the vomer (p) with the plate of the ethmoidal or cribriform bone.

q Part of the upper jaw bone, which belongs to the bottom of the noſtrils.

r A ſuture common to the upper jaw bones.

s s The upper jaw bones, next the cheeks.

t t The foramina or holes of the channels (V V) which paſs along the bottom of the orbits of the eyes.

u The pterygoide or winged proceſs of the multiform bone.

w x y z The lower mandible or jaw bone. x a hole out of which paſs a nerve of the fifth pair and blood-veſſels to the chin, after paſſing through a canal within the jaw. y the acute proceſs. z the neck of the obtuſe proceſs or head, by which the mandible is articulated to the temporal bone.

a The cartilage in the joint of the lower jaw, interpoſed betwixt its head and the temporal bone.

b c d e f g h i: b c d e f g h i The left teeth in each of the jaws. *b b* The firſt of the inciſive or cutting teeth. *c c* the ſecond inciſive teeth. *d d* the canine or dog-teeth. *e e* the firſt of the grinders. *f f* the ſecond. *g g* the third. *h h* the fourth. *i i* the fifth, (called dentes ſapientiae) or eye-teeth.

In the Spine.

k The body of the atlas, or vertebra of the ſpine which ſuſtains the head; and in this place it is connected to the epiſtrophaeus, or next vertebra.

l The body of the epiſtrophaeus where it ſuſtains the atlas.

m The lower oblique proceſs of the fifth vertebra of the neck.

n o p q The fourth vertebra of the neck. *n* its upper oblique proceſs. *o* its lower oblique proceſs. *p* its tranſverſe proceſs. *q* its body.

r The lateral opening betwixt the third and fourth vertebra.

s s, &c. The ligaments which are interpoſed betwixt the bodies of the vertebrae, and which tie them one to the other.

t u u w w x The third vertebra of the neck. *t* the body. *u u* the tranſverſe proceſſes. *w w* the upper oblique proceſſes. *x* the lower oblique proceſs.

y y z z C The ſecond vertebra of the neck. *y y* the upper oblique proceſſes. *z z* the tranſverſe proceſſes. *C* the body.

D D H H L L X The firſt vertebra of the neck. *D D* the upper oblique proceſſes. *H H* the tranſverſe proceſſes. *L L* the lower oblique proceſſes. *X* the body.

P P S W W Y The twelfth vertebra of the back. *P P* its upper oblique proceſſes. *S* the tranſverſe proceſs. *W W* the lower oblique proceſſes. *Y* the body.

O a a b b The eleventh vertebra of the back. *O* the body. a a the upper oblique proceſſes. b b the tranſverſe proceſſes.

c The tranſverſe proceſs of the ſixth vertebra of the back.

d d e e The third vertebra of the back. d d the body. e e the tranſverſe proceſſes.

f g g The ſecond vertebra of the back. f its body. g g its tranſverſe proceſſes.

h The body of the firſt vertebra of the back.

i k k The fifth vertebra of the loins. i its body. k k its tranſverſe proceſſes.

l m m n The fourth vertebra of the loins. l its body. m m its tranſverſe proceſſes. n its upper oblique proceſs.

o p p The third vertebra of the loins. o its body. p p its tranſverſe proceſſes.

q q r r s The ſecond vertebra of the loins. q q the upper oblique proceſſes. r r its tranſverſe proceſſes. s its body.

t t u u v v w The firſt vertebra of the loins. t t its upper oblique proceſſes. u u its tranſverſe proceſſes. v v its lower oblique proceſſes. w its body.

x x y y z z z z z z A A A A The os ſacrum or great bone of the ſpine. x x the upper oblique proceſſes of its firſt vertebra. y y the ſides of this bone. z z z. z z z the three upper and anterior foramina or holes to tranſmit the nerves on each ſide. A A A A the four upper bodies of this bone; betwixt which are bony lines that were formerly ligaments.

B The fourth ſmall bone of the coccyx.

In the Thorax, Clavicles, and Scapulae.

CDEF The ſternum or breaſt bone conſiſting of three parts, of which C is the upper, D the middle, and E the lower; to which laſt is fixed the enſiform cartilage F.

G H The ligaments by which the bones of the ſternum are connected together.

IKLM. IKLM The firſt ribs. K the ſmall head by which it is articulated with the tranſverſe proceſs of the twelfth vertebra of the back. L the former part of the ſaid head, which is connected with the body of the ſame twelfth vertebra of the back. M its cartilaginous end by which it is continued to the ſternum.

NNOP. NNOP The ſecond ribs. O the former part by which it is articulated with the bodies of the eleventh and twelfth vertebrae of the back. P the cartilaginous end of this rib.

QQQR. QQQR The third ribs. R its cartilaginous end.

SSST. SSST The fourth ribs. T its cartilaginous end.

VVVVWX. VVVVW The fifth ribs. W its cartilaginous end, ſpreading and adhering (on the left ſide X) to the cartilage belonging to the ſixth rib.

YYYYZC. YYYYZC The ſixth ribs. Z its cartilaginous end, ſpreading in the part *C*, and adhering to the cartilage of the ſeventh rib.

DDDHL. DDDHL The ſeventh ribs. *H* the cartilaginous end which grows broad at *L*, and is attached to the cartilage of the eighth rib.

XXXXPS. XXXXP The eighth rib. *P* the cartilaginous end, which in ſome bodies ſpreads in the part *S*, and is attached to the cartilage of the ſeventh rib.

WWWWY. WWWY The ninth rib. *Y* its cartilaginous end.

OOOOOOa. OOOOOOa The twelfth rib. *a* its cartilaginous end.

bbbbc. bbbbc The eleventh rib. *c* its cartilaginous end.

de. de The twelfth rib. *e* its cartilaginous end.

fgi fgi The clavicles or collar-bones. *g* the head which is ſuſtained by the ſternum. *i* the head faſtened to the upper proceſs of the ſcapula or blade-bone.

hh Cartilages interpoſed betwixt the joints of the clavicles with the ſternum.

kk The cartilages interpoſed betwixt the joints of the collar-bones and the upper proceſſes of the ſcapulae or blade-bones.

lllllllllmnopq. lllllllllmnopq The ſcapulae or ſhoulder-blades. *m* its ſpine or ridge. *n* its coracoide or crows-bill proceſs. *o* its acromion or upper proceſs. *p* the neck. *q* the cartilaginous cruſt which increaſes the neck.

In the Arms, Fore-arms, and Hands.

rstuwxyzab. rstuwxyzab The humeri or bones of the arms. *r* the head, incruſted with a ſmooth cartilage. *s* the greater unequal protuberance in the upper head of this bone. *t* the leſs unequal protuberance of the ſame. Betwixt theſe protuberances is a ſinus, through which paſſes the tendon of the longer head of the biceps muſcle of the arm. *w* a ſinus [or cavity which receives the upper head of the radius, at the time when the fore-arm is bent as much as poſſible. *x* a ſinus that receives the upper head of the ulna, when the cubit is bent as much as it can be. *y* a round head incruſted with a ſmooth cartilage, and articulated with the ulna. *z* another round head incruſted with a ſmooth cartilage, and articulated with the radius. *a* the leſſer condyle. *b* the greater condyle.

cdefg. cdefg The ulna or greater bone in each fore-arm. d its upper head, upon which appears a roughneſs, wherein is inſerted the brachiaeus internus muſcle. ef its lower head which ſuſtains the radius; and here f denotes an arch or concavity lined with a ſmooth cartilage.

g A ſtyloide or pointed proceſs in the lower head of the ulna.

hinopq. hklm The radius or leſs bone in each fore-arm. i its upper head. k the circumference or rim of its upper head incruſted with a ſmooth cartilage. l a protuberance, at the poſterior part of which the tendon of the biceps muſcle of the arm is inſerted, which bends the fore-arm toward the body when the palm of the hand is downwards. m n o p q the lower head of this bone. n denotes a ſinus or groove through which paſs the tendons of the long abductor, and leſs extenſor muſcles of the thumb. o a ſinus through which goes the tendon of the longer radialis externus muſcle. p a ſinus through which goes the tendon of the ſhorter radialis externus muſcle. q a ſinus for the tendon of the greater extenſor of the thumb.

rst. rs The navicular bones of the wriſts. s the convexity or head which is articulated with the radius, incruſted with a ſmooth cartilage. t a convexity covered with a ſmooth cartilage, and received by the multangular bones.

uw. u The lunar bones of the carpus or wriſt. w a convexity incruſted with a ſmooth cartilage, and articulated with the radius.

xx The cuneiform or wedge-like bones of the wriſts. In the right hand this bone appears with a ſmooth cartilaginous cruſt, by which it is articulated with the lunar bone and with the ulna.

y The roundiſh or pea-like bone of the wriſt.

zAAB. zA the unciform or hook-like bones. AA the part which is covered with a ſmooth cartilage, articulated to the cuneiform and lunar bones. B the unciform proceſs.

CD. CD Oſſa magna vel capitata, the great or round-headed bones of the wriſts. D the round head incruſted with a ſmooth cartilage, and articulated with the navicular and lunar bone.

EE The trapezoide, cubical, or leaſt of the multangular bones in the wriſts.

FF The greater trapezial or multangular bones of the wriſts.

GH. GH The metacarpal bones of the thumbs. H the lower head incruſted with a ſmooth cartilage, by which it is articulated with the firſt bone of the thumb, and with the ſeſamoid bones, IK.

IK The ſeſamoid bones (*i. e.* like ſeſamum ſeeds) fixed at the joint of the thumb with its metacarpal bone.

LM. LM The firſt bones of the thumbs. M the lower head incruſted with a ſmooth cartilage, by which it is articulated with the laſt bone of the thumb.

N A ſeſamoid bone placed at the laſt joint of the thumb.

OO The laſt bones of the thumbs.

PQRST: PQRST The metacarpal bones of the hands. P the metacarpal bone of the index or firſt finger. Q that of the middle finger. R that of the ring finger. S that of the auricular or little finger. T the lower head, incruſted with a ſmooth cartilage in the firſt joint of the finger: And the ſame holds in the reſt of theſe bones.

VW Small ſeſamoid bones ſometimes found at the firſt joints of the index and little finger.

XYZGD: XYYZZCD The firſt phalanx, order, or row, of bones in the fingers. X that of the index. Y that of the middle finger. Z that of the ring finger. *C* that of the little finger. *D* the lower head, covered with a ſmooth cartilaginous cruſt, at its articulation or joint with the ſecond bone of the finger: The ſame holds alſo in the reſt of the fingers.

HLXPS: HLXPS The bones in the fingers of the ſecond phalanx or order. *H* that of the index. *L* that of the middle finger. *X* that of the ring finger. *P* that of the little finger. *S* the lower head incruſted with a ſmooth cartilage, and jointed to the third or laſt bone of the finger: And ſo in the reſt of theſe bones.

WYOa. WYOa The bones of the third phalanx or laſt order of the fingers. *W* that of the index. *Y* that of the middle finger. *O* that of the ring finger. *a* that of the little finger.

In the Pelvis Legs, and Feet.

bcdeefghiiklm. bcdeefghiiklm The innominate or baſon bones, including three others. *bcd* the os ilium or flank-bone. *c* the ſpine or ridge of that bone. *d* a tubercle from whence ariſes the rectus or ſtraight muſcle of the thigh. *eef* the iſchion, or hitch-bone. *f* a ſinus or notch through which paſs the internal iliac, and great pſoas or lumbal muſcle. *g* the ſharp pointed proceſs of the iſchium. *h* the tubercle of the iſchium. *iikl* the os pubis. *k* the ſpine or ridge of the os pubis, from whence ariſes the pectineus muſcle of the thigh. *l* a tubercle, into which is inſerted the lower and outer tendon of the double aponeuroſis of the oblique external muſcles of the abdomen. *m* the great foramen or hole of this bone.

n A cartilage or griſtle interpoſed betwixt the bones of the pubis, and connecting them together.

opqrstuwxy. opqrstuwxyy The thigh bones. *o* the head incruſted with a ſmooth cartilage. *p* the neck. *q* the greater trochanter or ſpoke. *r* a rough protuberance, to which is fixed a ligament that ſecures the joint of the hip. *s* the leſs trochanter or ſpoke. *u* the outer condyle of the lower head. *w* the inner condyle. *x* a ſinus or cavity incruſted with a ſmooth cartilage next the joint of the patella or knee-pan bone. *y* ſo far extends the ſmooth cartilaginous cruſt that covers the condyles or lower heads of the thigh bone, at its junƈture with the tibia, or great bone of the leg.

zz The patellae or knee-pan bones.

ab. ab The interior ſemilunar cartilages in the joints of the knees: At b b, backwards, theſe turn into ligaments, and are inſerted into the tibia.

cd. cd The outer ſemilunar cartilages, turning to ligaments in the back part of the joint d d, which are inſerted into the tibia.

efghikl. efghikl The tibia or great bones of the legs. e the upper head. fg ſmooth cartilaginous incruſtations covering the top of the tibia, next the femur, in the joint of the knee. h the protuberance into which is fixed the ligament of the patella, faſtening the bone to that tibia. i the ſpine or edge of the tibia. kl its lower head. l the inner ancle.

mno. mno The fibulae or ſlender bones of the leg. m the upper head. n the ſpine or ridge. o the lower head, which makes the outer ancle.

pqr. pqr The aſtragalus or cockal bone. q the ſmooth cartilaginous cruſt that covers its convexity next the bones of the leg to which it is jointed. r a like cruſt covering its head or fore part.

st. st The calcanei or heel-bones. t the part that ſuſtains the neck of the aſtragalus.

uu The navicular bones of the tarſus or ancle.

vv The greater cuneiform bones of the tarſus.

ww The ſmall cuneiform bones of the tarſus.

xx The middle cuneiform bones of the tarſus.

y The cuboid or cubical bone of the tarſus.

zABCDE: zABCDE The bones of the metatarſus or inſtep. z that of the fourth or little toe. A that of the third. B of the ſecond. C of the firſt, and D of the great toe. E a ſmooth cartilaginous cruſt that covers the lower head at its junƈture with the firſt bone of the great toe: Which cruſt is alſo in the reſt of theſe bones.

FG: F Seſamoid bones placed at the junƈtures of the great toes with their metatarſal bones.

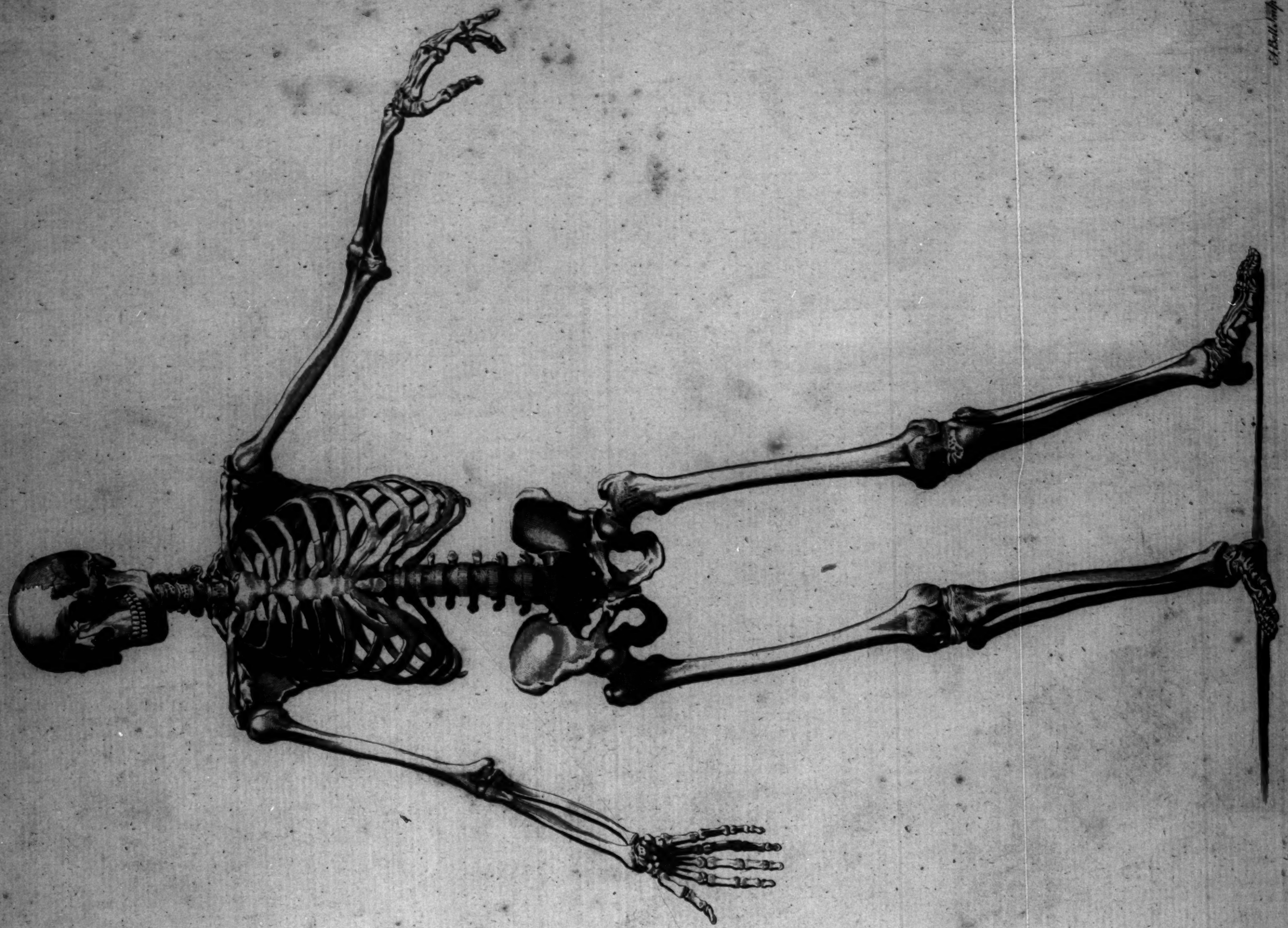
HH The firſt bones of the great toes.

II The laſt bones of the great toes.

KLMN: KLMN The bones of the firſt phalanx or order of the ſmaller toes. K that of the firſt toe. L of the ſecond. M of the third, and N of the fourth or little toe.

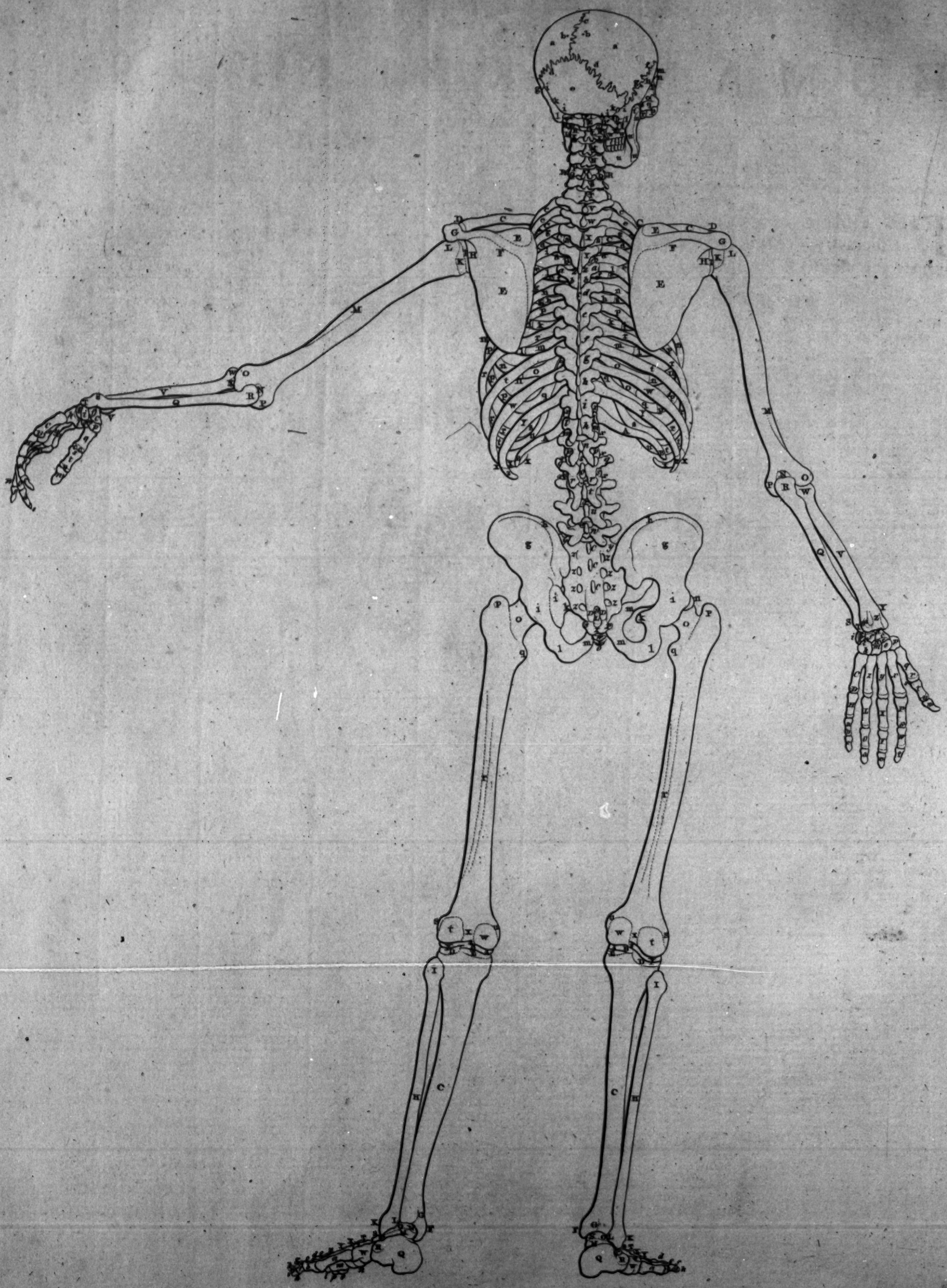
OPQR: OPQR The bones of the ſecond phalanx or order of the ſmaller toes. O that of the firſt toe. P that of the ſecond. Q of the third, and R that of the fourth or little toe.

STVW: STVW The bones of the laſt phalanx or third order of the ſmaller toes. S that of the firſt toe. T that of the ſecond. V of the third, and W of the fourth or little toe.



TAB. I.

TAB. II.



A. Bell Sculpt.

THE

Second Anatomical Table

OF THE

HUMAN SKELETON

EXPLAINED.

THIS Table repreſents a back-view of the former Skeleton, and in the ſame poſition. We have likewiſe here added ſome of the ligaments and cartilages, where they appeared neceſſary to make up or continue the joints of the bones.

In the Head and Spine.

a a The verticle or parietal bones.

b b The verticle foramina or holes tranſmitting ſmall veins to the longitudinal ſinus.

c The ſagittal or longitudinal ſuture.

d d The lambdoid or occipital ſuture.

e The occipital bone.

f The ſquamoſe ſuture, formed by a conjunction of the ſcaly part of the temporal and parietal bones.

g g True ſutures, formed by a conjunction of the maſtoid or dug-like proceſſes of the occipital bone with the parietal bones.

h The os ſquamoſum, or ſcaly part of the temporal bone,

i i. i i Appendages of the lambdoid ſuture.

k k Foramina or holes, through which paſs branches of the internal jugular veins, to the lateral ſinuſſes of the dura mater.

l l The maſtoide or mammillary proceſſes of the temporal bones.

m The frontal or forehead bone.

n A ſuture formed by the conjunction of the jugal with the frontal bone, near the extremity of the eye-brow.

o A ſuture made by the conjunction of the jugal proceſs of the temporal bone with the cheek bone.

p p The os jugale or cheek bone.

q The jugal proceſs of the temporal bone.

r Os maxillare ſuperius, or the upper jaw-bone.

Betwixt r and p is a ſuture formed by a conjunction of the jugal or cheek-bone with the upper jaw-bone.

s A cartilaginous plate interpoſed betwixt the joint of the lower jaw with the temporal bone.

t u u u u The lower jaw or mandible. t the head which is joined to the temporal bone.

w w Thoſe parts of the upper jaw-bones which ſuſtain the palate or roof of the mouth.

The teeth in the jaws appear evidently of themſelves.

x x The ſtyloide or pointed proceſſes of the temporal bones.

y y z A B C D D E The atlas, or uppermoſt vertebra, that ſuſtains the head. y y its tranſverſe proceſſes. z a hole in the tranſverſe proceſs. A an arch or curvature found in ſome bodies; And this, with the ſinus through which the vertebral artery is inflected behind the body of the atlas, makes the hole B, through which that artery penetrates into the great cavity of the vertebrae; as at other times it paſſes through a ſinus or notch, marked C in the left ſide. C a ſinus or notch in that part of the body of the atlas where it ſuſtains the head; through which ſinus the vertebral artery bends itſelf, when it is about to enter the great ſpinal cavity of the vertebrae. D D the lower parts of its body, by which it is connected to the epiſtrophaeus. E a rough protuberance, which is inſtead of a ſpinal proceſs, and from whence ariſe the (muſculi recti poſtici minores capitis) ſmaller, poſterior, ſtraight muſcles of the head.

F G H H I I K K L The epiſtrophaeus, or vertebra upon which the head and atlas turn laterally. F its axis. G the inner part of its body. H H the two vertices or turning points which ſuſtain the atlas. I I The tranſverſe proceſſes. K K the lower oblique proceſſes. L the ſpinal proceſs.

M N Two of the vertebrae of the neck. M the fifth. N the fourth in order, counting upwards.

O P P Q Q R R The third vertebra of the neck. O the ſpinal proceſs. P P the upper oblique proceſſes. Q Q the lower oblique proceſſes. R R the tranſverſe proceſſes. From hence the parts of the other vertebrae of the neck may be likewiſe underſtood.

S T The two lower vertebrae of the neck. S the ſecond, and T the firſt in order.

V W X Y Vertebrae of the back. V the twelfth. W the eleventh. X the tenth. Y the ninth.

Z Z *a a b b c* The eighth vertebra of the back. Z Z its upper oblique proceſſes. *a a* the tranſverſe proceſſes. *b b* the lower oblique proceſſes. *c* the ſpinal proceſs. From this the parts of the other vertebrae of the back may be underſtood.

d e f g h i Vertebrae of the back. *d* the ſeventh. *e* the ſixth. *f* the fifth. *g* the fourth. *h* the third. *i* the ſecond.

k l l m m m The firſt vertebrae of the back, in which *l l* denote the tranſverſe proceſſes, as if they were inflected behind the junctures of the upper oblique proceſſes of this vertebra with the lower oblique proceſſes of the ſecond vertebra. *m m m* its body.

n The fifth vertebra of the loins.

o p p q q r r s s s The fourth vertebra of the loins. *o* the ſpinal proceſs. *p p* the upper oblique proceſſes. *q q* the tranſverſe proceſſes. *r r* the lower oblique proceſſes. *s s s* the body of this vertebra. The parts of the other vertebrae of the loins may without difficulty be underſtood from this.

t u w The remaining vertebrae of the loins. *t* the third. *u* the ſecond, and *w* the firſt of them, reckoning upwards with Albinus, which is contrary to the cuſtom of Britiſh Anatomiſts.

x x, &c. The ligaments that are interpoſed betwixt the bodies of the vertebrae and connect them one to the other.

y y z z z z z z z z C C C D D H L The os ſacrum or great bone of the ſpine. *y y* the upper oblique proceſſes. *z z z z z z z z* the poſterior foramina or holes. *C C C* the ſpinal proceſſes. *D D* the lower oblique proceſſes, with which are conjoined the upper oblique proceſſes of the firſt bone of the coccyx. *H* the body of the fourth of thoſe vertebrae which compoſe the os ſacrum. Betwixt *H* and *L* is a bony part which was formerly a ligament, intervening and contiguous with the bodies of the fourth and fifth of theſe falſe vertebrae. *L* the body of the fifth vertebra of the os ſacrum.

Betwixt *L* and *X* is a ligament, interpoſed between the bottom of the os ſacrum and coccyx, and tying them together.

X P S The firſt bone of the os coccygis. *X* the body. *P* the tranſverſe proceſs; the fellow to which it alſo in the other ſide. S the upper oblique proceſs; the fellow to which is alſo in the other ſide.

Betwixt *X* and *W* is a ligament that ties together the bodies of the firſt and ſecond bones of the coccyx.

W Y O The lower bones of the coccyx, *W* the ſecond, *Y* the third, *O* the fourth.

In the Thorax and Upper Extremities.

a a b b The ſternum or breaſt-bone.

c c d d. c e d d The firſt or uppermoſt ribs. d d the cartilaginous part.

e e e f. e e e f The ſecond ribs. f the cartilaginous part.

g g h. g g g h The third ribs. h the cartilaginous part.

i i k. i i k the fourth ribs. k the cartilaginous part.

l l m. l l m The fifth ribs. m the cartilaginous part.

n n n n o o. n n n n o The ſixth ribs. o the cartilaginous part.

p p p p p q q. p p p p q q The ſeventh ribs. q the cartilaginous part.

r r r s. r r r r s The eighth ribs. s the cartilaginous part.

t t t u. t t u The ninth ribs. u the cartilaginous part.

w x x. w x x x The tenth ribs. x the cartilaginous part.

y z. y z The eleventh ribs. z the cartilaginous part.

A B. A B The twelfth ribs. B the cartilaginous part.

C C C C. C C C The clavicles or collar bones.

D D Cartilaginous plates faſtened betwixt the junctures of the clavicles with the acromia or upper proceſſes of the ſcapulae or ſhoulder blades.

E E F G H I. E E F G H I The ſcapulae or blade-bones. F the ſpine. G the acromion or upper proceſs. H the neck. I the cartilage that lines the cavity of its neck.

K L M N O P. K L M N O P The humeri or bones of the arms. K the head incruſted with a ſmooth cartilage where it is jointed or received into the cavity of the ſcapula. L the greater unequal protuberance of the upper head. M a ſinus or groove through which the brachial artery, vein, and nerve paſs along. N a ſinus or cavity that receives the olecranon or head of the ulna when the fore-arm or cubit is extended. O the leſſer condyle, and P the greater condyle or protuberance in the lower head of the humerus.

Q R S T. Q R S T The ulna or greater bone of the cubit. R the protuberance of its upper head, called the olecranum or elbow. S its lower ſmall head that ſuſtains the radius. T the pointed proceſs of its lower head.

V V W X. V X Y Z *a b* The radii or leſs bones of the cubit. W X the upper head. X the circumference or rim of the upper head incruſted with a ſmooth cartilage which moves in the concavity of the ulna. Y the ſinus which contains the tendons of the long abductor of the thumb, and of the leſs extenſor. Z a ſinus that receives the tendons of the outer radial muſcles. *a* the ſinus or groove that conducts the tendon of the larger extenſor of the thumb. *b* the ſinus or groove that conducts the tendons of the common extenſor of the fingers, with that of the extenſor proper to the little finger, and to the index or firſt finger.

c d e. c The navicular bones of the wriſts. *d* the ſmall head incruſted with a ſmooth cartilage where it is joined to the radius. *e* the head covered with a ſmooth cartilage that meets the multangular bones.

f f The lunar bones, that on the right hand appears covered with a ſmooth cartilaginous cruſt where it is jointed to the radius.

g h. g The oſſa triquetra or cuneiform bones of the wriſts. *h* the part covered with a ſmooth cartilage which is jointed with the unciform bone (*k l*).

i i The oſſa ſubrotunda, piſiformia, or pea-like bones.

k l. k l The unciform bones of the carpus. *l* the ſurface incruſted with a ſmooth cartilage that is jointed with the cuneiform bone (*g*).

m n. m Oſſa magna vel capitata, the great or round headed bones of the wriſts.

h the round head incruſted with a ſmooth cartilage by which it is jointed to the lunar and navicular bone.

oo The trapezoid or leſs of the multangular bones in the wriſts.

pp The trapezial or great multangular bones of the carpus.

qr. q The metacarpal bones of the thumbs. *r* the lower head covered with a ſmooth cartilaginous cruſt, where it is jointed to the firſt bone of the thumb, and with the ſeſamoid bones. The ſame is alſo true of the left thumb.

ss The ſeſamoid bones placed at the joint of the thumb with its metacarpal bone.

tu. tu The firſt bones of the thumbs. *u* a ſmooth cartilaginous cruſt that covers the lower head where it is jointed to the laſt bone of the thumb.

ww The laſt phalanges or bones of the thumbs.

xyzCD. xyzCD The bones of the metacarpus or hand. *x* that of the index or firſt finger. *y* that of the middle finger. *z* that of the ring finger. *CD* that of the little finger. *D* the cartilaginous cruſt that covers its lower head where it is jointed to the bone of the firſt phalanx or order. The ſame holds in the reſt of theſe bones.

HLXPS. HLXP The bones of the fingers of the firſt phalanx or order. *H* that of the little finger. *L* that of the ring finger. *X* that of the middle finger. *PS* that of the index or firſt finger. *S* a cartilaginous cruſt covering the lower head, where it is jointed to the bone of the ſecond phalanx: The ſame likewiſe holds in the other fingers.

*WYO*ab. *WO*a The bones of the fingers of the ſecond phalanx or order. *W* that of the index. *Y* that of the middle finger. *O* that of the ring finger. ab that of the little finger. b part of the lower head at its joint with the bone of the third and laſt order, incruſted with a ſmooth cartilage. The like in the other fingers.

cdef. cdef The bones of the fingers of the third and laſt phalanx or order.

ghiklmm. ghiklm The oſſa innominata or haunch bones. gh the os ilium, hip or flank bone. h its ſpine or edge. i the iſchium or hitch bone. k the ſharp proceſs of the iſchium. l the tubercle or ſeat of the iſchium. m the os pubis.

nopqrstuwx. opqrstuwx The thigh bones. n the round head, which being incruſted with a ſmooth cartilage is received or jointed into the acetabulum or cavity of the haunch bone. o the neck. p the great trochanter or ſpoke. q the leſs trochanter. r the linea aſpera or roughneſs that is extended down the backſide of the thigh bone. st the outer condyle or protuberance of the lower head of the femur, of which t denotes the part belonging to the joint of the knee, covered with a ſmooth cartilaginous cruſt.

uw the inner condyle; w the part of it that belongs to the joint of the knee incruſted with a ſmooth cartilage. x the ſinus or cavity betwixt the condyles.

yy The exterior ſemilunar cartilages which end in ligaments that are inſerted into the head of the femur and tibia in the joint of the knee, zz.

AA The interior ſemilunar cartilages, inſerted in the joint of the knee; and affixed to the tibiae or greater bones of the legs BB by their extremities, turned into ligaments.

CDEFG. CDEFG The tibiae or greater bones of the legs. DE parts of the upper head of the tibia, which being incruſted with a ſmooth cartilage, belong to the joint of the knee. F the inner ancle. G a ſinus or groove through which paſs tendons of the tibialis poſticus and long flexor of the toes.

HIKL. HIKL The fibulae or ſlender bones of the legs. I the upper head which is fixed to the tibia. K the outer ancle. L the ſinus or notch through which paſs the tendons of the long and ſhort peronei muſcles.

MNOP. MNOP The aſtragali or cockal bones. NO the ſmooth cartilaginous incruſtation that covers its convexity; and N denotes that part which is jointed to the tibia; O that which is jointed to the os perone or fibula. P its head.

QR. QR The calcanei or heel bones. R a protuberance at which the tendon of the peroneus longus muſcle is inflected.

SS The navicular bones of the tarſus or ancle.

TT The leſs cuneiform bones of the tarſus.

VV The middle cuneiform bones of the tarſus.

WW The cubical bones of the tarſus.

XYZ*a*. XXYZ*a* The bones of the metatarſus or inſtep. X that of the firſt of the ſmaller toes, Y that of the ſecond, Z of the third, and *a* that of the fourth or little toe.

bcde. bcd The bones of the firſt phalanx or order of the ſmaller toes. *b* that of the fourth or little toe, *c* that of the third, *d* that of the ſecond, *e* of the firſt.

fg. f The bones of the ſecond order or phalanx of the ſmaller toes; *f* that of the fourth, *g* of the third.

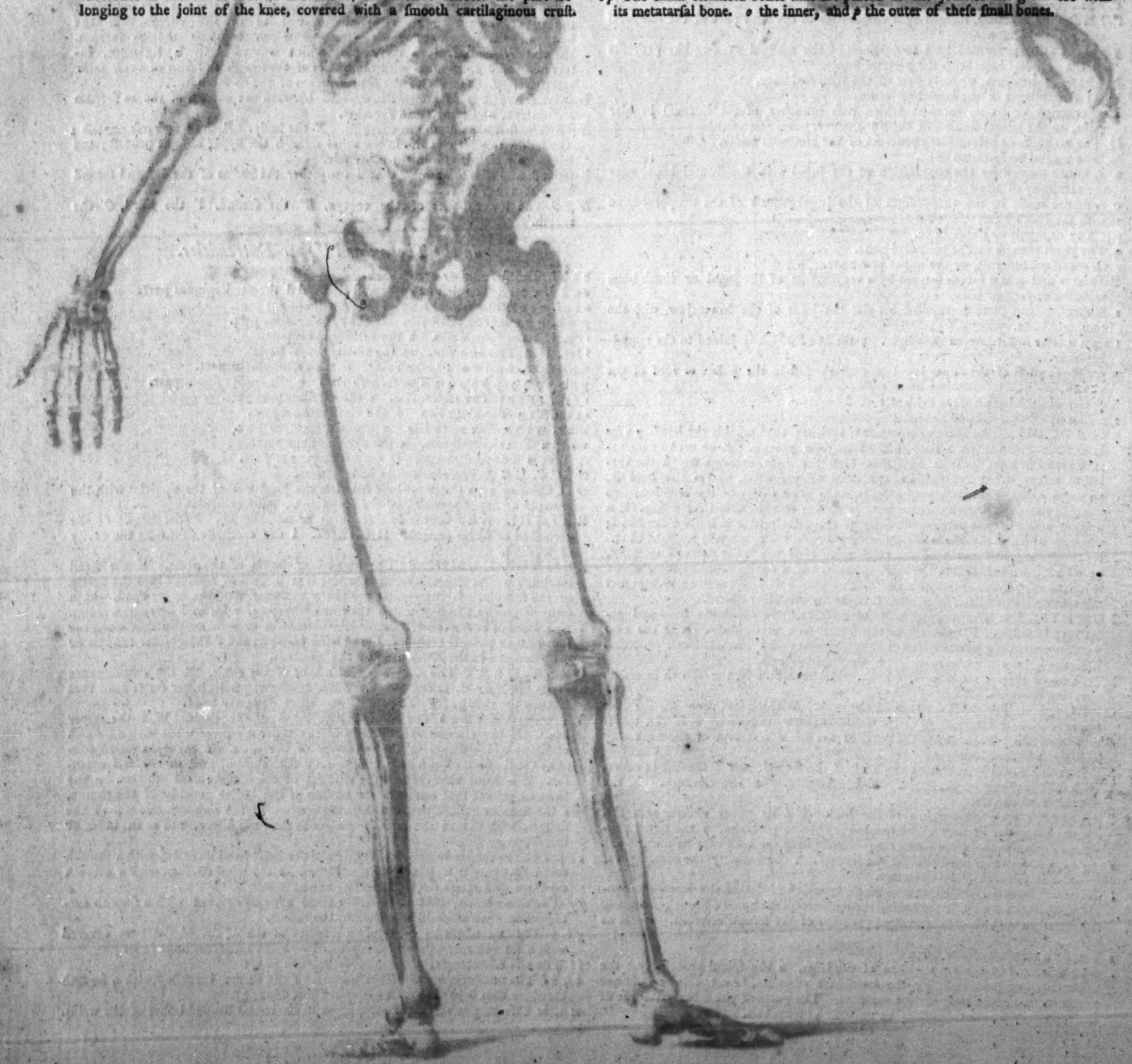
bik. b The bones of the third or laſt phalanx of the ſmaller toes; *b* that of the fourth or little toe, *i* of the third, *k* of the ſecond.

l The firſt bone of the great toe.

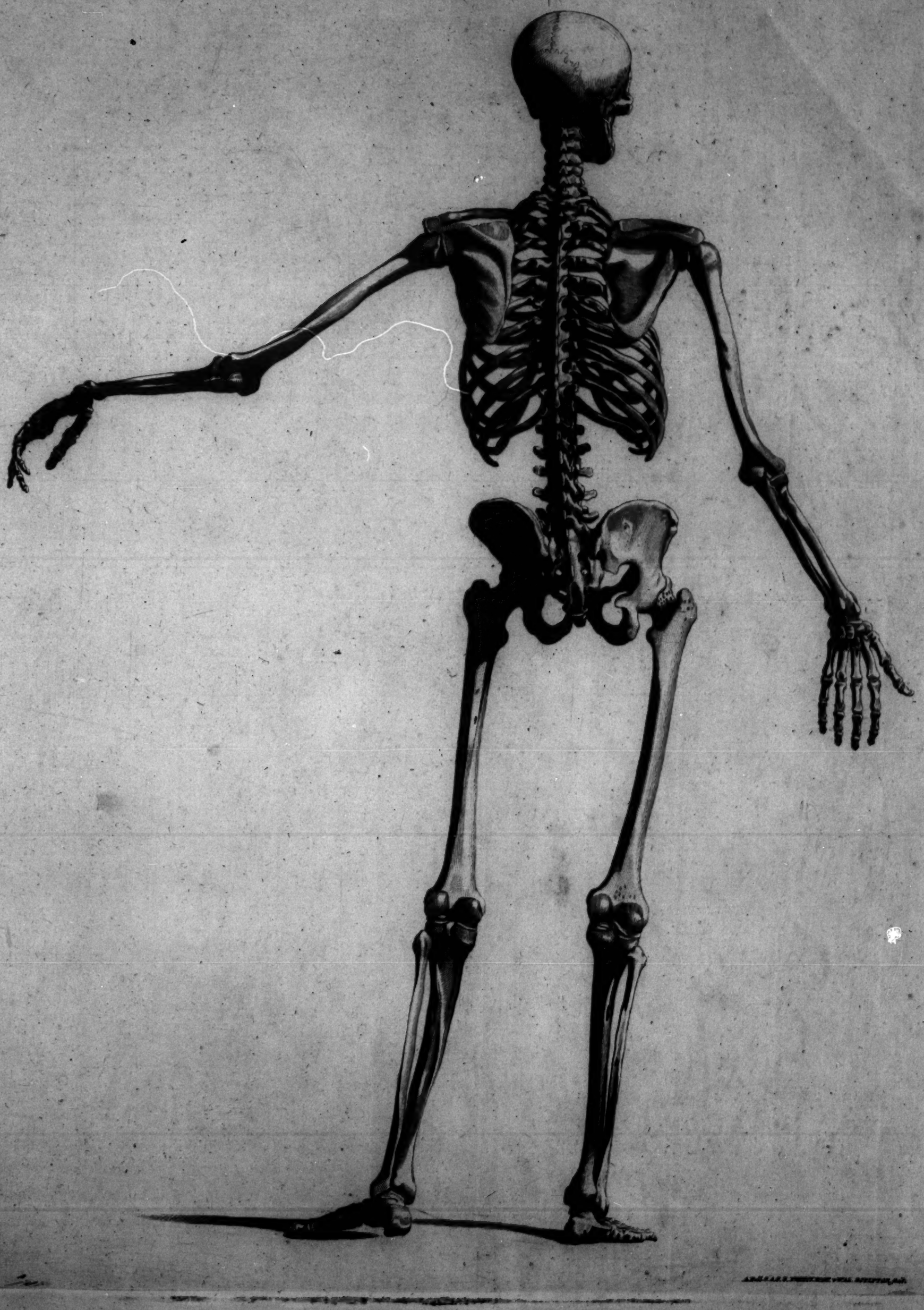
m The metatarſal bone of the great toe.

n The greater cuneiform bone of the tarſus.

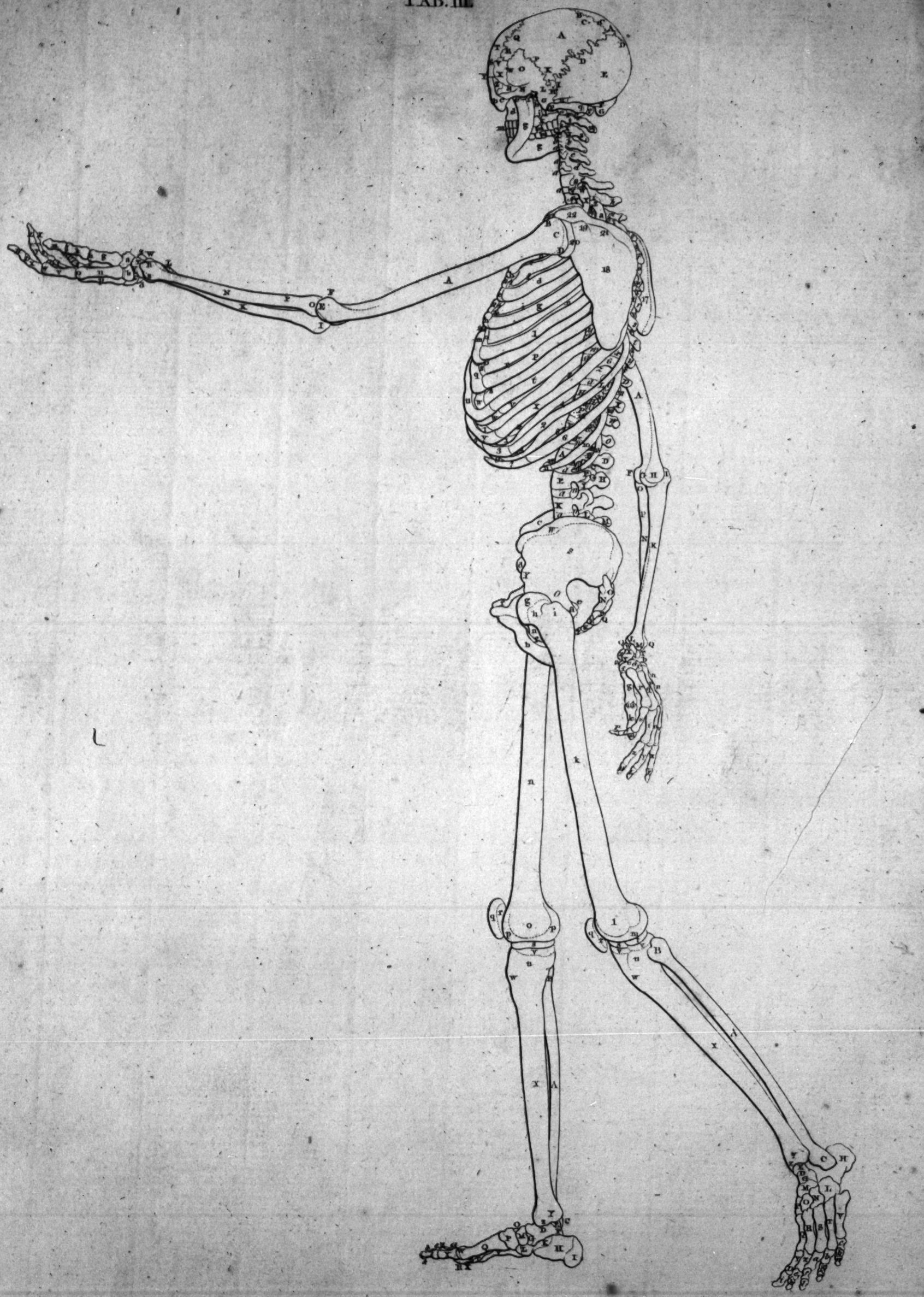
op The ſmall ſeſamoid bones that are placed at the joint of the great toe with its metatarſal bone. *o* the inner, and *p* the outer of theſe ſmall bones.



TAB. II.



TAB. III.



A. Bell Sculpt.

THE

Third Anatomical Table

OF THE

HUMAN SKELETON

EXPLAINED.

THIS Table repreſents a ſide-view of the ſame Skeleton, as before; but in a different attitude or poſition. And to this figure we have likewiſe, in ſome places, added ligaments and cartilages, where they ſeemed neceſſary to continue the joints of the bones.

In the Head and Spine.

A A The vertical or parietal bones.
B The ſagittal or longitudinal ſuture.
C C The vertical foramina or holes tranſmitting ſmall veins to the longitudinal ſinus of the dura mater.
D D The lambdoid ſuture.
E The occipital bone.
F G. G The mammillary proceſſes of the temporal bones. F a protuberance from whence ariſes the digaſtric muſcle of the lower jaw.
H Two foramina or ſmall holes; one in the maſtoid proceſs of the temporal bone, near the appendix of the lambdoid ſuture: The other in the appendix itſelf of that ſuture; through which laſt foramen a vein paſſes to the lateral ſinus of the dura mater.
I An appendix or addition to the lambdoid ſuture.
K A true ſuture, formed by a conjunction of the maſtoid part of the temporal bone with the parietal bone.
L The maſtoid or mammillary proceſs of the temporal bone.
M The bony meatus or entrance of the ear.
N The zygomatic or jugal proceſs of the temporal bone.
O The ſquamoſe or ſcaly part of the temporal bone.
P The ſquamoſe ſuture, formed by a conjunction of the temporal with the parietal bone.
Q R S The coronal ſuture. Q that part which is a ſerrated or true ſuture. R S that part of the frontal bone which like a ſcale ſhoots under the parietal bone R. S the multiform or ſphenoidal bone.
T The frontal bone.
V The ſquamoſe ſuture, formed by the conjunction of the multiform bone with the parietal bone.
W A ſuture formed by the conjunction of the largeſt lateral proceſs of the multiform bone with the ſquamoſe part of the temporal bone.
X The largeſt lateral proceſs of the multiform bone.
Y A ſuture common to the os frontis and cheek bone near the extremity of the eye-brow.
Z Part of the os jugale or cheek bone in the temporal cavity.
Below Z is a ſuture common to the cheek bone with the upper jaw bone in the temporal cavity.
Betwixt Z and X is a ſuture common to the cheek bone with the largeſt lateral proceſs of the multiform bone.
a The os maxillare ſuperius or upper jaw bone.
Betwixt a and X is a ſlit or aperture that is left betwixt the upper jaw, cheek, and multiform bone.
b The outer part of the os jugale or cheek bone.
c A ſuture common to the cheek bone with the zygomatic proceſs of the temporal bone.
d The os maxillare ſuperius, or upper jaw bone.
e f g g The mandible or lower jaw. e its coronal or acute proceſs. f its condyle or head that is jointed with the temporal bone. Juſt above f appears the moveable cartilaginous plate that is interpoſed in the articulation of the lower jaw.
h i The concave part of the left winged proceſs of the multiform bone. i the little hook that ſupports and confines the tendon of the circumflex muſcle of the palate.
k l The baſis of the upper jaw bone. k that part which forms the gums or ſockets of the teeth. l that which is in the palate.
m m m The teeth in each of the jaws.
n o o p p q The atlas or uppermoſt vertebra. n the left part of its body, into which is received the coronoid proceſs of the occipital bone, which ſuſtains the head with a moveable joint. o o the two lower parts of its body by which it is faſtened with moveable articulations to the epiſtrophaeus. p p the tranſverſe proceſſes. q the protuberance or inequality that is inſtead of a ſpinal proceſs, and from whence ariſe the (recti poſtici minores capitis) the leſs poſterior and ſtraight muſcles of the head.
r r s t u The epiſtrophaeus or ſecond vertebra of the neck. r r the two parts of its body which ſuſtain the atlas or uppermoſt vertebra, with moveable junctures. s the tranſverſe proceſs, in which is a foramen or ſmall hole to give a paſſage to the vertebral artery and vein. t the lower oblique proceſs. u the ſpinal proceſs, the extremity or end of which is furcated or divided into two.
v w x y z The fifth vertebra of the neck (if we reckon upwards, otherwiſe the third, if we count downwards, as is moſt uſual). v its body. w its tranſverſe proceſs. x its upper oblique proceſs. y its lower oblique proceſs. z its ſpinal proceſs.
a a, &c. The ligaments interpoſed betwixt the bodies of the vertebrae and tying them to each other.
b c d e The lower vertebrae of the neck. *b* the fourth. *c* the third. *d* the ſecond. *e* the firſt. The parts or proceſſes of theſe vertebrae are intelligible from the laſt explained.
f g h The twelfth or uppermoſt vertebra of the back. *f* the body. *g* the tranſverſe proceſs. *h* the ſpinal proceſs.
i k l The eleventh vertebra of the back. *i* the tranſverſe proceſs. *l* the ſpinal proceſs.
m The tranſverſe proceſs of the tenth vertebra of the back.
n n, &c. Openings made betwixt the vertebrae for the ſpinal nerves to come out, &c.
o p q r s The ſpinal proceſſes of the vertebrae of the back. *o* that of the tenth. *p* of the ninth. *q* of the eighth. *r* of the ſeventh, and *s* of the ſixth.
t u The fifth vertebra of the back. *t* the ſpinal proceſs. *u* the body.
w x y The fourth vertebra of the back. *w* the body. *y* the ſpinal proceſs.
z C D The third vertebra of the back. *z* the body. *C* the lower oblique proceſs. *D* the ſpinal proceſs.
H H L X The ſecond vertebra of the back. *H H* the body. *L* the upper oblique proceſs. *X* the ſpinal proceſs.
P S W The firſt vertebra of the back. *P* its body. *W* its ſpinal proceſs.
Y Y O The uppermoſt vertebra of the loins. *Y Y* it body. *O* its ſpinal proceſs.
A A Æ B C C D The fourth vertebra of the loins. A A the body. Æ the upper oblique proceſs. B the tranſverſe proceſs. C C the lower oblique proceſs. D the ſpinal proceſs.
E F G H I The third vertebra of the loins. E the body. F the tranſverſe proceſs. G the upper oblique proceſs. H the ſpinal proceſs. I the lower oblique proceſs.
K The ſecond vertebra of the loins, the parts and proceſſes of which may be underſtood from the laſt mentioned.
L M The loweſt vertebra of the loins. L its upper oblique proceſs. M its ſpinal proceſs.
N O P The os ſacrum, or great bone of the ſpine. N the unequal or rough part of its ſide below the os ilium. O the third ſpinal proceſs. P the lower oblique proceſs, which is jointed to the upper oblique proceſs of the firſt ſmall bone of the coccyx.
Q R The firſt ſmall bone of the coccyx. Q its upper oblique proceſs. R its body.
S T The lower ſmall bones of the coccyx. S the ſecond. T the third.

In the Thorax, Shoulder-blades, and Clavicles.

V W X The firſt rib of the left ſide. V the firſt head or anterior part of its ſpinal end that is faſtened into the body of the twelfth vertebra of the back. W The ſecond head that is jointed with the tranſverſe proceſs of the ſame vertebra.
Y Z a a b The ſecond rib of the left ſide. Y the firſt head that is faſtened into a ſinus or ſmall cavity, common to the bodies of the eleventh and twelfth vertebrae of the back. Z the ſecond ſmall head that is jointed with the tranſverſe proceſs of the eleventh vertebra of the back. b its cartilaginous end.
c The ſecond rib of the right ſide.
d d e The third rib of the left ſide. e its cartilaginous end.
f f The third rib of the right ſide.
g h The fourth rib of the left ſide. h its cartilaginous end.
i i k The fourth rib of the right ſide. k its cartilaginous end.
l m The fifth rib of the left ſide. m its cartilaginous end.
n n o o The fifth rib of the right ſide. o o its cartilaginous end.
p p q The ſixth rib of the left ſide. q its cartilaginous end.
r r s s The ſixth rib of the right ſide. s s its cartilaginous end.
t t u The ſeventh rib of the left ſide. u its cartilaginous end.
v v w w The ſeventh rib of the right ſide. w w its cartilaginous extremity.
x y The eighth rib of the left ſide. y its cartilaginous end.
z z z 1 1 The eighth rib of the right ſide. 1 1 its cartilaginous end.
2 3 The ninth rib of the left ſide. 3 its cartilaginous end.
4 4 4 5 5 The ninth rib of the right ſide. 5 5 its cartilaginous end.
6 6 7 The tenth rib of the left ſide. 7 its cartilaginous end.
8 8 9 The tenth rib of the right ſide. 9 its cartilaginous end.
10 10 11 The eleventh rib of the left ſide. 11 its cartilaginous end.
12 12 13 The eleventh rib of the right ſide. 13 its cartilaginous end.
14 15 15 16 The twelfth rib of the left ſide. 14 its firſt head that is faſten-

ed to the body of the lowermoſt vertebra of the back. 16 its cartilaginous end.

17 The inner ſide of the right ſcapula or ſhoulder-blade.

18 19 20 21 22 The left ſcapula. 19 its neck. 20 the cartilaginous part that enlarges its neck, and covers the cavity into which the humerus is jointed. 21 the ſpine. 22 its acromion or upper proceſs.

23 The left clavicle, or collar-bone.

24 24 24 The os pectoris, or breaſt bone.

In the Upper Extremities.

ABCDEF. AFGH The humeri, or bones of the arms. A in the left humerus denotes a protuberance where the deltoid muſcle is inſerted. BCC the upper head. B the leſs protuberance of the upper head. C the greater protuberance of the upper head. Betwixt B and C is a ſinus or groove wherein is lodged the tendon of the lower head of the biceps muſcle of the arm. D a ſmooth cartilaginous cruſt that covers the part of the head which is jointed into the cavity of the ſcapula. E the leſs condyle of the lower head. F the head covered with a ſmooth cartilage with which the radius is articulated. G a convexity incruſted with a ſmooth cartilage to which the ulna is articulated. H the greater condyle.

IKL. IKLM The ulnae, or greater bones of the cubit. I the olecranon, or elbow. L a ſmall head, in its circumference incruſted with a ſmooth cartilage where it is articulated to the radius. M the ſtyloid or pointed proceſs.

NOPQQ. NOPRS The radii, or leſs bones of the fore-arm. O the upper head. P a tubercle, at the back part of which the tendon of the biceps muſcle of the arm is inſerted, which bends the fore-arm towards the body when the palm of the hand is downwards. QQRS the lower heads. R a ſinus or groove through which paſs the tendons of the leſs extenſor and long abductor muſcles of the thumb. S a ſinus or groove that is again partitioned into two, through which paſs the tendons of the external radial muſcles.

TV. T The navicular bones of the wriſts. V the head incruſted with a ſmooth cartilage by which it is jointed to the multangular bones.

WW The lunar bones of the carpus.

XY The os triquetrum, or cuneiform bone of the wriſt. X that part which is incruſted with a ſmooth cartilage, where it is jointed to the ulna by a ligament that paſſes from the bottom of the head of the ulna to the bottom of the radius, where the latter is jointed to the ulna.

ZZ The oſſa rotunda, or pea-like bones of the carpus.

aa The trapezial, or great multangular bones.

bb The trapezoid, or leſs multangular bones of the carpus.

ccc The oſſa magna vel capitata, the great or round-headed bones of the wriſts.

ddef The unciform bones of the wriſts. e the part incruſted with a ſmooth cartilage where it is articulated with the cuneiform bone (XY). f the unciform proceſs.

ggh The metacarpal bones of the thumbs. h a cartilaginous cruſt that covers the lower head where it is jointed to the firſt phalanx and the ſeſamoid bone. The ſame is alſo true in the right thumb.

ii The ſeſamoid bones placed at the joint of the thumb with its metacarpal bone.

kkl The firſt phalanx, or bone of the thumb. l a cartilaginous cruſt covering the lower head where it is jointed with the laſt bone.

mm The laſt phalanx, or bones of the thumbs.

nnpqr: nopr The metacarpal bones of the hands; n that of the index or firſt finger, p that of the middle finger, q that of the ring finger, r that of the little finger. o the ſmooth cartilaginous cruſt that covers the lower head of the metacarpal bone of the index, where it is jointed to the bone of the firſt phalanx: And the ſame holds of the reſt of theſe bones in each hand.

stuv: stuvw The bones of the firſt phalanx, or order of the fingers. s that of the little finger, t that of the ring finger, u that of the middle finger, v that of the index. w a ſmooth cartilaginous cruſt that covers the lower head where it is jointed to the bone of the ſecond phalanx, or order. And the ſame alſo holds in the reſt.

xyzC: xyzCD The bones of the ſecond phalanx, or order of the fingers: x that of the index, y that of the middle finger, z that of the ring finger, C that of the little finger. D the lower head incruſted with a ſmooth cartilage, where it is jointed to the bone of the third, or laſt order: And ſo of the reſt.

HLXP: HLX The bones of the third, or laſt phalanx of the fingers. H that of the index, L that of the middle finger, X that of the ring finger, P that of the little finger.

In the Pelvis and lower Extremities.

SWWYOab The left os innominatum. SWY the os ilium, hip, or flank bone. W its ſpine. Y the protuberance from whence ariſes the rectus muſcle of the leg. O a the os iſchium or hich bone, a the acute proceſs of the iſchium, b the os pubis.

cdeff The right os innominatum. c the ſpine or edge of the os ilium. d the tubercle from whence ariſes the rectus muſcle of the leg. e the acute proceſs of the iſchium. f f the os pubis

ghiklm The left femur, or thigh bone. g the head incruſted with a ſmooth cartilage where it is jointed in the acetabulum. h the neck. i the greater trochanter. l the outer condyle of the lower head. m ſo far extends the ſmooth cartilaginous cruſt that covers part of the condyles at their juncture with the knee.

nnoppp The right femur, or thigh bone. o the inner condyle. p p the boundaries of the ſmooth cartilaginous cruſt that covers the part of this condyle where it is jointed to the tibia and patella.

qr. qr The patellae, or knee-pan bones. r that part which is covered with a ſmooth cartilaginous cruſt which forms part of the joint at the knee.

ss The inner ſemilunar cartilages that are interpoſed in the joints of the knees.

t The outer ſemilunar cartilage in the joint of the knee.

uvvwxyz. uvwxyz The tibiae or greater bones of the legs. u the upper head, v that part of the upper head which belonging to the joint of the knee is covered with a ſmooth cartilaginous cruſt. w a protuberance in which terminates the ligament that comes from the patella, and ties the ſame to the tibia. yz the lower head, z the inner ancle.

ABC. ABC The fibulae, or ſmall bones of the legs. B the upper head. C the outer ancle.

DEFG. DEG The aſtragali, or cockal bones. E that part which helps to form a juncture with the bones of the leg, covered with a ſmooth cartilaginous cruſt. F a ſinus or groove through which paſſes the tendon of the long flexor muſcle of the great toe. G the cartilaginous incruſtation that covers this head of the aſtragalus.

H. HIK The calcanei, or heel bones. I the tubercle by which it begins; and into the back and lower part of which is inſerted the tendo Achillis with the tendon of the plantaris muſcle; it is inclined upward and backward when we bend the leg and foot forwards. K the projecting part that ſuſtains the head of the aſtragalus.

LL The cubical bones of the tarſus, or ancle.

MM The navicular bones of the tarſus.

N The middle cuneiform bone of the tarſus.

OO The leſs cuneiform bones of the tarſus.

PP The greater cuneiform bones of the tarſus.

QRSTV: QRSTVW The bones of the metatarſus, or inſtep: Q that of the great toe, R that of the firſt of the ſmall toes, S that of the ſecond, T that of the third, V that of the fourth. W the head of the metatarſal bone of the great toe covered with a ſmooth cartilaginous cruſt at its juncture with the bone of the firſt phalanx and ſeſamoid bones. The ſame is alſo true of the other bones of the metatarſus.

X The ſeſamoid bones that are placed at the joint of the great toe with its metarſal bone.

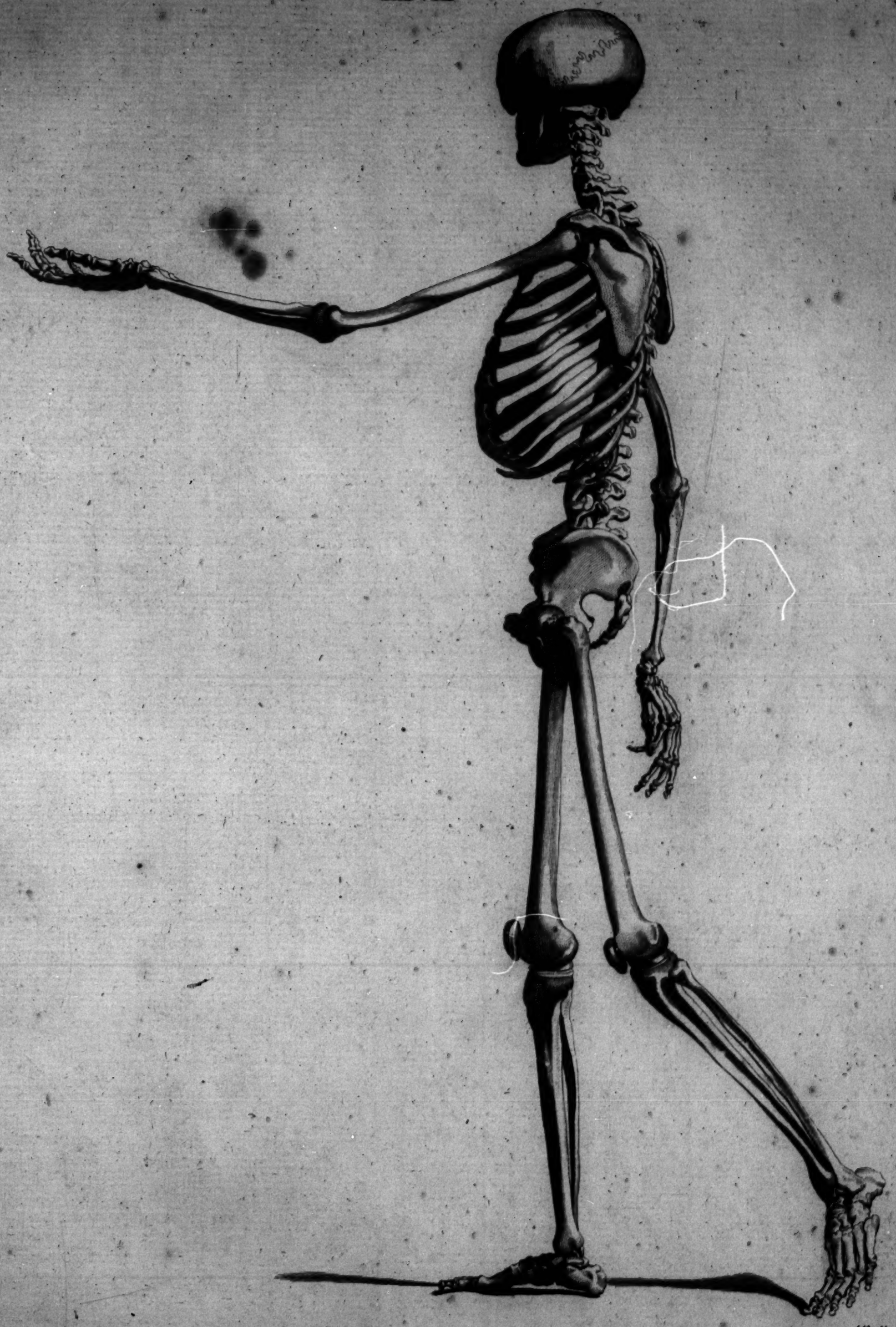
YZa: YZabcD The bones of the firſt phalanx, or order of the great and ſmall toes: Y that of the great toe, Z that of the firſt of the ſmall toes, *a* that of the ſecond, *b* that of the third, *c* that of the little toe. *D* the round head incruſted with a ſmooth cartilage where it is jointed to the next bone. The ſame likewiſe holds in the reſt of theſe bones.

eefgh The bones of the ſecond phalanx, or order of the ſmall toes: *e* that of the firſt toe, *f* that of the ſecond, *g* of the third, and *h* of the little toe.

ii The laſt bones of the great toes.

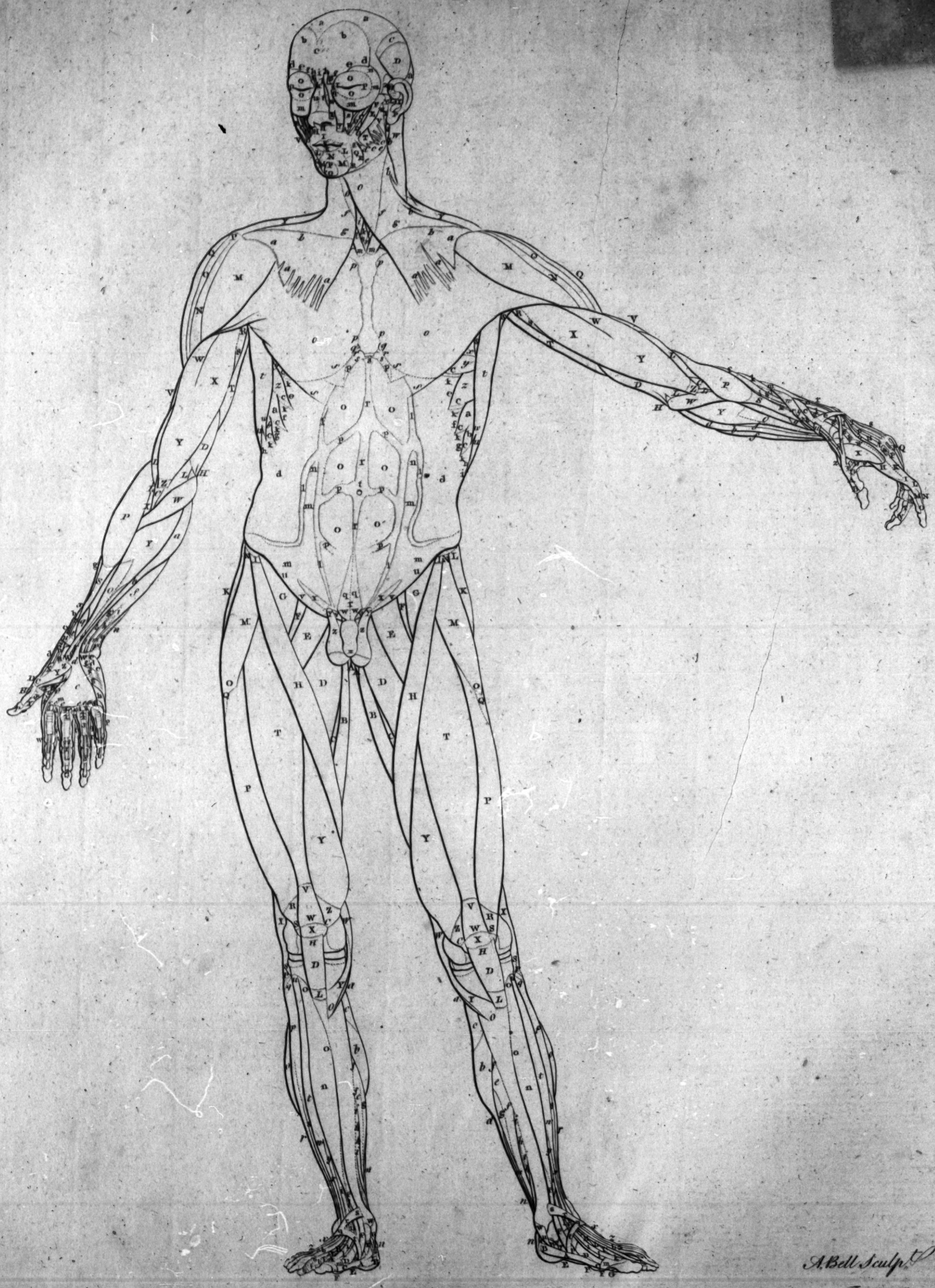
kk: klmn The bones of the third and laſt phalanx, or order of the ſmall toes: *k* that of the firſt, *l* of the ſecond, *m* of the third, and *n* of the little toe.

TAB. III



A Bell Sculp.t

TAB. I.



A. Bell Sculp.

THE

First Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

IN this Table are exhibited the outermoſt of the muſcles, juſt as they are ſituated, behind the common integuments and tendinous faſciæ, throughout the whole anterior part of the body; to which we have added ſome of the ligaments belonging to thoſe faciæ, and to the Skeleton, or proper to ſome other parts, as thoſe of the noſe, ears, and pudends, which are not covered with muſcles.

In the Head, Neck, and Trunk.

a a a b b c d e f g h d. e f g h i k l The Epicranius or muſcle of the ſcalp. a a a the tendinous expanſion betwixt the occipital and frontal muſcles. b b, &c. The frontal muſcles. b b the round margins from whence they ariſe. c the conjunction of the frontal muſcles along the middle of the forehead. d-e. d-e the termination of the frontal muſcles at the orbicular muſcles of the eye-lids. e-f. e-f their inflexion along the eye-lids to the greater or inner corners of the eyes, according to the courſe of the orbiculares palpebrarum. g. g the points that inflect themſelves into the greater angles. h. h portions that go to the elevators of the upper lip and wings of the noſe. i the part that runs betwixt the eye-brows, and upon the noſe. k l the conjunction of the frontal muſcles with the compreſſores narium; with which, at k, they are interwove, and at l they are continued with them.

m m n o o p q r. m o o p The orbicular muſcles of the eye-lids. m m that part which is expanded round the margin of the orbit of the eye. n the part that comes from the corrugator of the eye-brow. o o the part that is ſpread over the eye-lid. p an intertexture or implication of the fibres, which, coming from the eye-lids, meet together near the leſſer canthus or angle. q r the origin of the fibres from the ligament, by which the conjunction of the eye-lids in the greater canthus is tied to the noſe.

s The ligament by which the tarſi, or cartilaginous edges of the eye-lids meeting in the greater canthus, are tied to the noſe, and partly to that origin of it that ſprings from the upper jaw-bone.

t u The compreſſor of the noſtril. t the fleſhy part. u its tendinous expanſion, by which the right and left of thoſe muſcles are conjoined, along the back of the noſe.

w x y. y The elevators of the upper lip and of the noſtril. x that part which goes along the ſide of the noſe to the wing of the noſtril. y that end which is expanded thro' the upper lip and there diſappears.

z A. z The elevators of the upper lip. A the extremity, which being extenuated, runs thro' the upper lip, and therein diſappears.

B. B Portions which come to the upper lip, from the orbicular muſcles of the eye lids.

C. C The leſs zygomatics, which, being extenuated thro' the upper lip, diſappear.

D D. D The elevators of the corners of the mouth. D D continues itſelf partly to the depreſſor of the angle of the mouth, and partly bends itſelf round the ſaid angle to the lower lip, and there it forms the outer part of the orbicular muſcle of the mouth.

E F G. E The greater zygomatics. F the origin from the os jugale. G the lower extremity continued to the depreſſor of the angle of the mouth.

H. H The naſal muſcles of the upper lip. Here may be ſeen its origin from the noſe, and the manner in which it is inſerted into the orbicular muſcle of the mouth.

I Part of the orbicular muſcle of the mouth in the upper lip, where it goes round the angle of the mouth, it receives a portion from the elevator of the angle (D D) which paſſes round with it.

K K Part of the orbicular muſcle of the mouth which is in the red margin of the lips.

L L Thin faſciculi or expanſions, that come partly from the greater zygomatics, extended hither; and partly from the depreſſors of the corners of the mouth; they croſs the faſciculi of the ſubjacent depreſſors of the lower lip.

M. M N The depreſſors of the lower lip, which decuſſate or traverſe each other at N.

O P The elevators of the chin. P fibres that intermix with the fat of the chin.

Q R R S. Q The depreſſors of the corners of the mouth. R R its origin from the lower jaw. S its continuation to the greater zygomatic.

T The buccinator, or trumpet-muſcle.

V W X Y. V The maſſeters. V the anterior and outer part. W the origin of part of it from the os jugale. X the poſterior part which is naked before. Y the origin of this poſterior part from the os jugale, and from the jugal proceſs of the temporal bone.

Z. The anterior muſcle of the outer ear.

C D The elevator of the outer ear. *C* its tendinous beginning by which it goes off from the epicranius. *D* the fleſhy part.

H The greater muſcle of the helix.

I. The muſcle of the tragus.

X The leſs muſcle of the helix.

P The antitragicus muſcle

S The digaſtric muſcle of the lower jaw.

W The ſternomaſtoid and cleinomaſtoid muſcles conjoined together into one.

Y Y Part of the cucullares muſcles.

Q a a a b b b c c d e e f g h. O a a a f g h The quadratus genæ, or broad muſcle of the neck. *a a a* its origin, conſiſting of thin and ſcattered faſciculi. *b b b* faſciculi or fibres, that in ſome people are detached to the ſide of the neck. *c c* ſcattered fibres, which, diſappearing in the cheek, terminate this muſcle. *d* a faſciculus that is extended towards the angle of the mouth, over the fore-part of the depreſſor of that angle. *e e* the lower jaw projecting under this thin and broad muſcle of the neck (*f g h*), in like manner, the ſternomaſtoideus *f*, and cleinomaſtoideus *g*, with the clavicle *h*, appear protuberant under this muſcle.

i i The ſternohyoidei muſcles.

k k The aſpera arteria, or wind-pipe.

l m. m The ſternomaſtoidei. *m* The tendinous beginning ariſing from the ſternum.

n n The ſternothyroid muſcles.

o p p q r s s. o p p q r s s The pectoral muſcles. *p p* its origin from the ſternum. *q* from the cartilage of the ſixth rib. *r* from the ſeventh, by a beginning that is for ſome way thin and tendinous. *s* a coheſion with the aponeuroſis of the oblique external muſcle of the abdomen. *s* a part of this muſcle coming from the aponeuroſis of the external oblique muſcle; which part is in this ſubject thin and tendinous, in others it is thicker and fleſhy, varying its condition in various bodies.

t t The teres major.

t u w. t u w The latiſſimi dorſi. *u w* two heads ariſing, the former form the tenth, and the latter form the ninth rib.

x y z a b c c c c. y z a b c c c c The ſerrati magni, vel antici inferiores. *x* the head ariſing from the fifth rib, *y* that from the ſixth rib, *z* from the ſeventh, *a* from the eighth, *b* from the ninth. *c c c c* the origin of the heads themſelves from the ribs.

d e f g h i k k k k l l l m m n o o o p p p p q r r r r s s t u v v w w x. d e f g h k k k k l l l m m n o o o p p p p q r r r r s s t u v v w w x, The external oblique muſcles of the abdomen. d the fleſhy part. e the head ariſing from the ſixth rib, f from the ſeventh, g from the eighth, h from the ninth, i from the tenth. k the origin of the heads themſelves from the ribs. *l l l, m m n o o o p p p p q r r r r s s t u v v w w x* its aponeuroſis or tendinous expanſion, under which, at m m, is protuberant the fleſh of the internal oblique muſcle, and under the aponeuroſes of both theſe, at n, protuberates the fleſh of the tranſverſe muſcle. Here the recti o o o, and their innervations p p p p, appear through the ſaid aponeuroſes, and under the ſame at q, protuberates the pyramidal muſcle. r r r r the linea alba, into which the aponeuroſes of the oblique external muſcles are continued, and croſs each other, and are conjoined to the ſubjacent ones. s an aponeuroſis inſerted into the breaſt bone. The part s may be ſaid to belong either to the aponeuroſis of the oblique external, or to the pectoral muſcle; and ſo either to ariſe from the cartilage of the ſeventh rib, or to be inſerted into it. t an opening in the linea alba, through which, in the fœtus, paſs out the umbilical arteries, the umbilical vein, and urachus. u the bottom of the tendinous margin that is extended from the ſpine of the ilium to the pubes. v v. w w the two parts into which the aponeuroſes ſplits itſelf, and continues diſtinct from thence to the pubes, under the appearance of a tendon, wherein is an aperture, through which paſſes out the chord of the ſpermatic veſſels with the cremaſter muſcle. x a thin expanſion continued from one tendon to the other, and connecting them together. Under this expanſion the ſpermatic chord paſſes along, a little protuberant and conſpicuous through it; till at length the ſaid chord comes out from beneath the expanſion, through an oblique ring or aperture, near the pubes; which ring is ſmall, and formed betwixt the expanſion x, the tendons v v. w w, and the os pubis. Laſtly, the fibres of the aponeuroſis that are expanded under the appearance of fleſh or muſcle, decuſſate other ſmall and thin tendinous fibres; as ſufficiently appears from the figure; and from both thoſe kinds of fibres is formed the expanſion x, that runs from one tendon through the other.

y. y The naked chords of the ſpermatic veſſels.

z. z The cremaſter muſcles.

In the lower Extremities.

A. A The glutei maximi.

B. B The graciles.

C. C The great abductors of the triceps of each thigh.

D. D The long abductors of the triceps of each thigh.

E. E The pectinei muſcles.

F. F The great pſoas or lumbal muſcle of the thigh, coming out of the abdomen.

G. G The internal iliac muſcles.

H I. H I The Sartorius or Taylor's muſcle. I its origin, which is outwardly tendinous from the ſpine of the ilium.

K L. K The glutei medii. L its origin from the ſpine of the ilium.

M N O. M N O The faciales or extenſors of the aponeurotic faſciæ of the thighs. N its origin from the ſpine of the ilium. O its extremity, when the tendinous part is cut off that joins the faſcia or vagina of the thigh.

P Q R S. P Q R S The vaſti externi. Q the tendinous part. R the lower tendon, inſerted into the patella at S.

T V W X. T V W X The recti or ſtraight muſcles of the thighs. V the tendon inſerted into the patella or knee-pan bone. W the place where the tendon inſerts itſelf into the patella. X an aponeuroſis that runs over the patella from the rectus, and afterward joins itſelf to the fore-part of the ligament that ties the patella to the tibia.

Y Z C. Y Z C The vaſti interni. Z the tendon of its end, inſerted into the patella at *C*.

D H L. D H L The ligament that ties the patella to the tibia. *H* the part where it ariſes from the patella. *L* the whole ſpace by which it is inſerted into the tibia below.

X P S. X P S Part of the biceps muſcle of each leg. *P S* its tendinous end, of which the principal part *P* is inſerted into the head of the fibula; *S* the part which belongs to the tibia.

W Y O. W Y O. The ſartorius (H). *Y* the tendon which is inſerted into the tibia at *O*.

a. a Lower end of the ſemitendinoſus, or ſeminervoſus.

b c d. b c The gemelli or gaſtrocnemii. *b* aponeuroſis. *d* the tendon.

e f f g. e f f g The ſolei. *f f* the origin from the tibia. *g* the tendinous ſurface.

h i i k. h i i k The long flexors of the toes. *i i* the origin from the tibia. *k* the beginning of the tendon.

l. l The tendons of the tibiales poſtici.

m. m The tendons of the plantares muſculi.

n n. n The great tendons of the heel, called Achillis.

o. o The ſolei muſcles.

p q r. p q r The peroneus longus. *q* its origin from the head of the fibula. *r* the tendon ariſing from the outer part of its fleſhy body.

s. s The peroneus brevis.

t u. t u The long extenſors of the toes conjoined into one with the peronei tertii. *u* the origin from the tibia.

w x x. w x x The peronei tertii. *x x* the tendon on the leg and foot.

y z a b c. y z a b c The long extenſors of the toes. *y* the tendon which is divided into four other tendons, *z a b c*, running over the back of the foot, and on the ſmall toes.

e f g h These letters are engraved only upon the first of the small toes of the right foot, (there not being room enough for them on the other small toes of each foot); but, from this one, the corresponding parts of the rest may easily be understood. d the common tendon of the long and short extensor of the toes, inserted into the bone of the second phalanx. e the tendon running to the bone of the third or last order, which tendon comes from the short extensor of the toes; but there is no such tendon goes to the little toe. f part of the common tendon of the long and short extensor, running to the third or last bone. g the common end of the two tendinous portions belonging to the third bone, into which they are inserted. h the aponeurosis that joins the tendon d, coming partly from the capsula of the joint of the toe with its metatarsal bone, partly from the tendon of the interosseus and lumbrical muscle of this side, and, in part, from the side of the bone of the first phalanx.

i i i k. i i i k The tendons of the extensors proper to the great toes. k the end inserted into the last bone of the great toe.

l l l. l l l Branches of the tendons of the extensors proper to the great toes, which are sometimes found.

m. m Aponeuroses which the tendons proper to the great toes receive from the capsules of the joints of the said toes, with their metatarsal bones.

n o o p p p. n o o p p p The tibiales antici. o o the origin from the tibia. p p p the tendon.

q r s t. q r s t The ligaments that cover and confine the tendons at the bottom of the leg, and on the back of the foot. r the upper horn affixed to the tibia at s. t the lower horn.

u w. u w The ligaments that retain the tendons near the inner ancles. w its origin from the said ancle.

x x The ligaments that retain the tendons of the tibiales postici.

y y. y The tendons of the tibiales postici inserted partly into the navicular bones, and running partly to the greater cuneiform bones.

z. z The muscular heads which arise from the calcanei or heel-bones, and go to the long flexors of the toes in the soles of the feet.

A B C. A B C The abductors of the great toes. B the origin from the side of the heel-bone. C the tendon.

D D The short flexor muscles of the great toes.

E E The short flexor muscles of the other toes.

F F. F The tendons of the long flexors of the great toes.

G The tendon of the long flexor of the great toe in the left foot, where it passes under the first phalanx, confined in a tendinous sheath that splits into two horns.

H I K. H I The short extensors of the toes. H a part belonging to the great toes. I a portion running to that side of the first of the less toes, which is next the great toe; sometimes found. K a portion belonging to the first of the less toes.

L L The first of the interossei muscles, belonging to the first of the small toes.

In the upper Extremities.

M N O P Q. M N O Q The deltoid muscles. M the first portion of the anterior order of fasciculi that compose this muscle. N the first of the lateral order. O P the third portion of the first or anterior order. P its origin from the acromion or upper process of the scapula. Q the middle portion of the second order.

R S The coracobrachiales; at the part R they are conjoined with the lower head of the biceps muscle of the arm.

T. T The long portions of the triceps muscles of the arms.

V. V The short portions of the triceps muscles of the arms.

W X Y Z *G*. W X Y Z *G* The biceps muscles of the arms. W the longer head. X the shorter head. Y the common belly. Z the aponeurosis that gives the tendinous fascia to the fore-arm, here cut off. *G* the tendon by which it is inserted into the radius.

D H. D H Portions of the triceps muscles of the arms, which are commonly called the brachiæi externi. *H* a tendon, which, arising from the surface, the said brachiæus goes to the posterior condyle of the humerus.

L L L. L L L The brachiaei interni muscles.

X The short supinator muscle of the radius

P S. P S The long supinators. *S* the tendon.

W W The round pronators of the radius.

Y O. Y O The radiales interni. *O* the tendon.

a b c d e e e e e e e e. a b The palmares longi. *b* the tendon. *c d e e e e e e e e* its aponeurosis, or tendinous expansion, first slightly distinguished into four portions, which become afterwards more distinct and strengthened by transverse tendinous fibres. *d* the portion which it sends off to the short abductor of the thumb. *e e e e e e e e* the extremities which this aponeurosis sends to the roots of the fingers.

f g h i k l l l m. f f f The sublimes. *g h* a portion that belongs to the middle finger; *h* the tendon. *i k* the portion that belongs to the ring finger; *k* the tendon. *l l l* the portion to the index. *m* the portion to the little finger.

n o p The ulnaris internus. *o* the tendon, inserted into the pisiform bone of the wrist *p*.

q r. q The long flexors of the thumbs. *r* the tendon.

s The tendon of the profundus that goes to the index.

t The pronator quadratus.

u u The ligaments under which pass the tendons of the long abductors and less extensors of the thumbs.

w x y z b b. x z z a b b The long abductors of the thumbs. *x* the upper part. *y* the lower part. *z z* the tendon of the upper part. *a* the portion which it sends off to the short abductor of the thumb. *b b* the tendon of its lower part.

c d. c d The less extensors of the thumbs. d the tendon.

e The outer part of the armillary, or round ligament.

f g g g g h The longer external radialis muscle. g g g g h the tendon inserted into the metacarpal bone of the index at h.

i The tendon of the less radialis externus longior.

k k l l l l The shorter radialis externus. l l l l the tendon.

m n o p q The common extensor of the fingers. n o the portion that belongs to the index, of which o denotes the tendon. p the tendon to the middle finger. q the tendon to the ring finger.

In the Left Hand.

r s The extensor proper to the little finger. s the tendon.

t The aponeurosis by which the tendon of the index o, and that of the middle finger p are conjoined together. By like aponeuroses also are conjoined the tendons of the middle and ring finger, of the ring and little finger: But these, as well as the conjunctions and divisions of the tendons of the common and proper extensor of the little finger, are not marked with letters; because the whole may be better understood from the first of the back views, which makes the fifth muscular table.

u u The tendon of the indicator muscle.

w The first or outermost interosseus muscle of the index.

x The abductor of the index.

y The tendon of the greater extensor of the thumb.

z The opposing muscle of the thumb.

A B The common tendon of the greater and less extensor of the thumb, inserted into the last bone or phalanx at B.

C The aponeurosis that invests the capsule of the joint of the thumb with its metacarpal bone, adhering to the said capsule and to the tendon of the common extensor of the thumb.

D The posterior tail of the short flexor of the thumb.

E The aponeurosis which the posterior tail of the short flexor of the thumb sends to the tendon of the common extensor of the thumb.

F G. The abductor of the thumb. G the tendinous end inserted into the first bone of the thumb.

H The aponeurosis which, arising partly from the first lumbrical and abductor muscle of the index, joins itself to the tendon of the common extensor of the index.

I The tendon of the first lumbrical muscle.

K L The common tendon of the indicator and extensor muscles belonging to the index.

M The tendon of the first lumbrical muscle, enlarged by a portion it receives from the common tendon of the extensors of the index, and running to the third or last bone of that finger.

N The tendon of the posterior interosseous muscle of the index, which being increased by a portion received from the common tendon of the extensors of the index, goes on to the third bone or phalanx of the index.

O The common end of the tendons M and N, inserted into the third bone of the index, formed by the tendons of the interossei muscles (M N) conjoined into one.

P P The tendons of the common extensor of the fingers, where they descend over the backs of the fingers, with the aponeurosis they receive.

Q The common tendon of the extensors of the little finger, descending over the back of that finger.

R A tendon common to the outer interosseous muscle of the middle finger and second lumbrical muscle; which tendon being augmented by a portion it receives from the tendon of the common extensor, runs down to the last or third bone.

S A tendon of the sublimis muscle.

T A ligament that invests the tendon of the profundus, together with the extremities of the tendon of the sublimis.

V A tendon of the profundus.

The same (S T V) also holds in the other three fingers, in which the parts being very small, are not marked with letters.

In the Right Hand.

W W The ligament of the carpus that, with the hollow of the wrist, forms a canal that holds and confines the tendons which go to the fingers and thumb from the sublimis, profundus, and long flexor of the thumb.

X The opponent muscle of the thumb.

Y Z *C D* The short abductor of the thumb. Z its origin from the ligament of the wrist. *C* part of its tendinous end inserted into the first bone of the thumb. *D* tendinous fibres which pass over the back of the thumb, and join to the other part of the tendon of the extensors of the thumb, and continues itself to a like aponeurosis of the short flexor of the thumb.

H The common tendon of the extensors of the thumb.

L Part of the short flexor of the thumb, which may be reckoned another short abductor of the thumb: Its tendinous end being inserted into the first bone of the thumb.

X P The tendon of the long flexor of the thumb in a manner split in two. *P* the end that belongs to the last bone of the thumb.

S The ligament by which the tendon of the long flexor of the thumb is retained upon the first phalanx; which ligament is oblique and simple at first, but is afterwards divided, or split into two extremities.

W The posterior tail of the short flexor of the thumb.

Y The abductor of the thumb.

O The first lumbrical muscle.

a The anterior, or outer interosseous muscle of the index.

b The abductor of the index, its tendinous end being inserted into the first bone of the index.

c d e The abductor of the little finger. d its origin from the ligament of the carpus, and from the round or pisiform bone of the wrist, e.

f The abductor of the metacarpal bone of the little finger.

g g The palmaris brevis, or square muscle of the palm.

h The small flexor of the little finger.

i The fourth lumbrical muscle.

k The third lumbrical muscle.

l The second lumbrical muscle.

m The former interosseous muscle of the middle finger.

n The former interosseous muscle of the ring finger.

o The former interosseous muscle of the little finger.

p The common tendon of the small flexor, and abductor of the little finger.

q The common tendon of the fourth lumbrical, and former interosseous muscle of the little finger.

r The tendon of the posterior interosseous muscle of the ring finger.

s The common tendon of the third lumbrical, and former interosseous muscle of the ring finger.

t The tendon of the posterior interosseous muscle of the middle finger.

u The common tendon of the second lumbrical, and former interosseous muscle of the middle finger.

v The tendon of the posterior interosseous muscle of the index.

w The tendon of the first lumbrical muscle.

x The tendon of the sublimis: By the side of which, next the thumb, is a tendon of the profundus, on which there is not room for a letter to be marked.

y z A tendon of the profundus, split as it were lengthwise, and inserted into the third bone or phalanx.

2 2 The two horns or tails of a tendon of the sublimis.

3 The ligament that invests the tendons of the sublimis and profundus as they pass along the first bone or phalanx: Which ligament is fixed on each side of the margin of the said first bone.

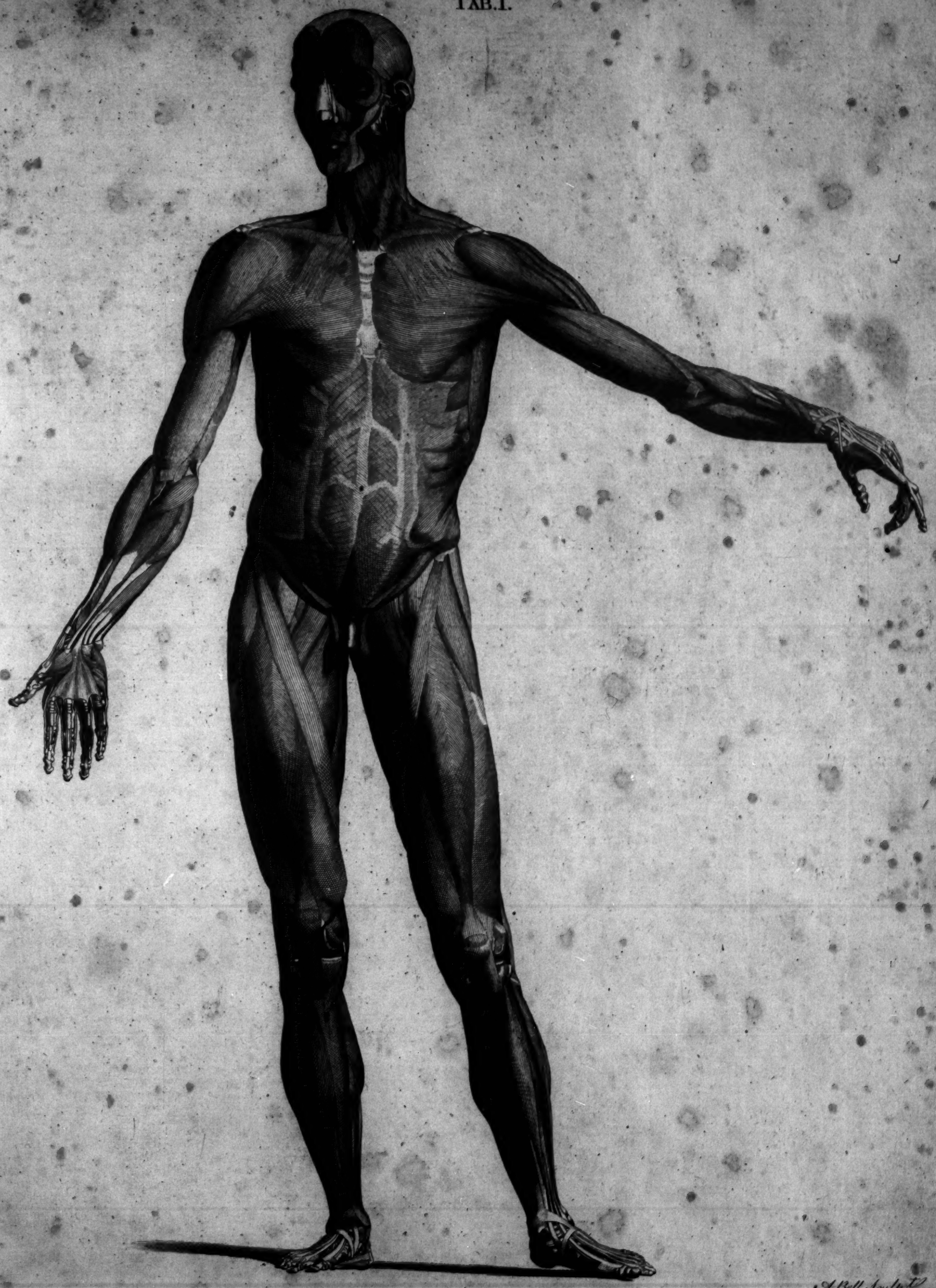
4 4 4 Three small ligaments which retain the tendons of the sublimis and profundus, near the joint of the finger, with its metacarpal bone; they are thick and continued to each other, and to the next ligament, 3, by thin tendinous fibres.

5 The ligament that invests the tendon from the profundus, and the extremities or tails of the sublimis tendon, about the middle of the length of the second bone, or phalanx; which ligament is affixed on each side to the margin of the second bone.

The same parts (x. y z. 2 2. 3. 4 4 4. 5.) are likewise in the rest of the fingers; and are sufficiently apparent, although they are not marked with letters.

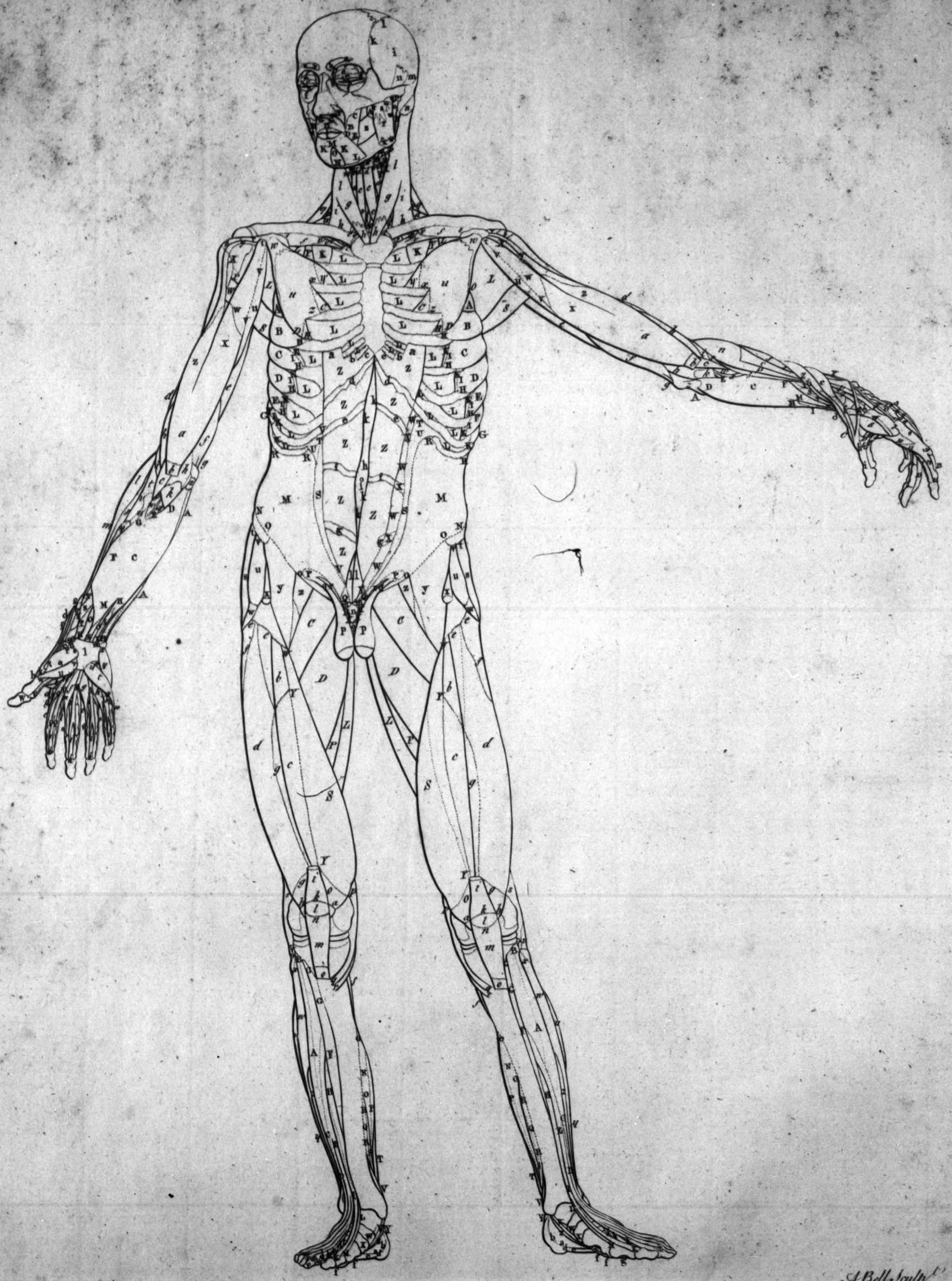
The parts of the Skeleton which appear betwixt the muscles are not marked with explanatory letters; since they may easily be understood from the first table of the Skeleton, in which the figure is plainly the same, and makes the basis or back-foundation of this; to the bones of which Skeleton the muscles are inscribed to form this and the other muscular tables.

TAB. I.



A. Bell Sculpt.

TAB. II.



A. Bell Sculp.

THE

Second Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

MOST of the primary or outermoſt muſcles contained in the firſt Table, being here taken away; we exhibit in the preſent figure the next order of muſcles, together with ſome of the ligaments and naked parts of the Skeleton, which make the foundation of thoſe muſcles.

The parts taken off from this figure are from the *head*, the epicranius, the elevator and anterior muſcle of the outer ear, with the ear itſelf. —From the *face*, the orbiculars of the eye-lids, the compreſſors of the noſtrils, the elevators of the upper lip and ſides of the noſe, the elevators proper to the upper lip, the portion detached from the orbiculars of the eye-lids to the upper lip, the greater and leſs zygomatics, and the depreſſors of the corners of the mouth.—From the *neck*, the latiſſimus or quadratus, and the cucullares.—From the *trunk*, are taken the pectorales, latiſſimi dorſi muſcles, and oblique external ones of the abdomen, with the penis.—From the *thighs*, the extenſors of their tendinous coverings, with the Taylors and ſtraight muſcles of the thighs and legs.—From the *legs* and *feet* are taken, the gaſtrocnemii, the tibiales antici, the ligaments that confine the tendons at the bottom of the leg and upon the back of the foot, the ligaments that retain the tendons near the inner ancles, the ligaments that retain the tendons of the tibiales poſtici, the abductors of the great toes, the aponeuroſes which the tendons of the extenſors proper to the great toes receive from the capſules of the joints of thoſe toes with their metatarſal bones.—From the *arms* are taken the deltoide muſcles. From the *fore-arms* and *hands*, the long ſupinators, the round pronators, the internal radials, the palmares longi, the ligaments under which paſs the tendons of the long abductors and leſs extenſors of the thumbs. Alſo from the right hand are taken the ſhort abductor of the thumb, the ligaments which retain the tendon of the long flexor of the thumb, the palmaris brevis, the ligaments confining the tendons of the ſublimis and profundus where they paſs along the fingers. Alſo from the left fore-arm and hand are taken, the common extenſor of the fingers, the extenſor proper to the little finger, the outer part of the round or carpal ligament, and the ligaments which confine the tendons of the ſublimis and profundus in the fingers.

In the Head, Neck, Thorax, and Shoulders.

a b. a b The corrugators of the eye-brows. b their origin from the os frontis.

c d e. c d e The elevators of the upper eye-lids. c the fleſhy part. d e the part that is like a thin tendinous expanſion, ſpread over the tarſus, which makes it project out in the part e.

f f f. f &c. The membranous part of the eye-lids.

g The ligament that ties the meeting of the eye-lids, in the greater canthus, to the naſal proceſs of the upper jaw-bone. The ſame is alſo in the other ſide of the face.

h h. h h Some continuations of the orbicular muſcles of the eye-lids, ariſing from the extremity of the aforeſaid ligament, and ſpread round the margin of the eye-lids in one continued courſe.

i k l m n The temporal muſcles. k l m the firſt beginning of its origin, from the os frontis at k, from the parietal bone at l, and from the temporal bone m. n its tendon.

o p q r s t u w w x. r The maſſeters. o the back part, where it is not covered, ariſing from the zygomatic proceſs of the temporal bone p, and from the os jugale q. r the anterior and outer part. s its tendinous beginning. t u its origin from the upper jaw-bone t, from the os jugale u. w w its tendinous ending, the extremity of which x is inſerted into the lower jaw.

y The digaſtric muſcle of the lower jaw.

z The buccinator muſcle.

A The external pterygoide muſcle.

B C D E. B. The elevators of the corners of the mouth. C its origin from the upper jaw. D the part where it joins to the naſal portion of the upper lip, and by which it joins the ſphincter of the mouth. E the part by which it is continued to the depreſſor of the corner of the mouth, which is cut off near this part.

F The depreſſor of the wing of the noſtril into which it is inſerted; part of the right is alſo viſible.

G. G The naſals of the upper lip; in which may be ſeen the manner of their ariſing from the noſe, and joining to the ſphincter of the mouth.

H I I The ſphincter of the mouth. H that part which is in the upper lip. I I the part in the red margin of the lips.

K L. K M The depreſſors of the lower lip. L the origin from the jaw. M the part where the right and left croſs each other.

N O The elevators of the chin. O fibres which mix with the fat of the chin.

P The digaſtric muſcle of the lower jaw.

Q The mylohyoidei, inſerted into the os hyoides.

R The ſtylohyoideus muſcle.

S The baſiogloſſus muſcle.

T The ceratogloſſus muſcle.

V A ligament extended from the end of the horn of the os hyoides to the upper proceſs of the thyroide cartilage, which it ties to the ſaid horn.

W The ſtylopharingeus muſcle.

X The lower conſtrictor of the pharynx.

Betwixt W and X is the upper proceſs of the thyroide cartilage.

Y Z. Y The hyothyroidei. Z the origin from the os hyoides.

a a b. a a b The coracohyoidei. *b* the end inſerted into the baſis of the os hyoides.

c c c d. c c c d The ſternohyoidei. *d* the end inſerted into the baſis of the os hyoides.

e e e. e e e The ſternothyroidei muſcles.

f The wind-pipe or trachia.

g h i k l m. g h i k l n The ſternal and clavicular portions of the maſtoide muſcle conjoined. *g h* the ſternal part or ſternomaſtoideus. *h* its origin from the ſternum by a tendon, and afterwards tendinous. *i k* the clavicular portion or cleidomaſtoideus. *k* its origin from the clavicle. *l* the conjunction of them both together into one. *m* the inner ſide of them. *n* the end which is inſerted tendinous into the maſtoide proceſs.

o The greater internal ſtraight muſcle of the head.

p p. p The middle ſcaleni.

q q The elevators of the ſhoulder blades.

r r The interior ſcaleni where they ariſe from the firſt ribs.

ſ ſ v v. ſ ſ v v The ſubclavian muſcles. *ſ* their tendinous origin from the cartilaginous end of the firſt rib, the aponeuroſis running along the lower ſide of the muſcle. *v v* the end which is inſerted into the clavicle.

u w x y z C D H. u w x y z C D H. The anterior and upper ſerrati muſcles. *w* the tendinous end that is inſerted into the coracoide proceſs of the ſcapula; the aponeuroſis of which tendon begins to appear firſt in the margin of the muſcle towards the axilla. *x y z C D H* the three heads. *x* the fleſhy part of the firſt head. *y* the thin tendinous part ariſing from the upper ſide of the bony and cartilaginous end of the third rib *z* the fleſhy part of the ſecond head ariſing in an oblique courſe from the whole breadth of the fourth rib, while its thin tendinous part *C*, ariſes from the bony and cartilaginous end of the ſame rib. *D H* the third head; *H* the thin tendinous part ariſing from the upper ſide of the bony end of the fifth rib.

L L X P. L L X The ſubſcapular muſcles. *X* the ſubſcapular part of its end, inſerted into the leſs protuberance of the upper head of the humerus; *P* the fleſhy part, inſerted into the humerus itſelf below the ſaid protuberance.

S. S The teres major on each ſide.

W The tendinous end of the latiſſimus dorſi joined with the teres major and inſerted into the os humeri.

In the Trunk.

Y O A B C D E F G. *Y* A B C D E F G The greater anterior and lower ſerratus muſcle. *Y* the part that ariſes from the ſecond rib. *O* the head ariſing from the third rib. A the head from the fourth. B from the fifth. C from the ſixth. D from the ſeventh. E from the eighth. F. from the ninth. G from the tenth rib.

H H, &c. The origin of its heads from the ribs.

I I, &c. The conjunction of its heads with the outer intercoſtals.

K K, &c. The outer intercoſtal muſcles.

L L, &c. The internal intercoſtal muſcles.

M N O O P Q R R S T U V V. M N O O P Q R R S T U W W W W X X X Y The internal oblique muſcles of the abdomen. M N O O P Q R R the fleſhy part. N its origin from the ſpine of the ilium. O O the edge of it coming from the tendinous margin of the external oblique muſcle of the abdomen. P the part under which runs the chord of the ſpermatic veſſels, a little protuberating and conſpicuous through it. Q the part under which the pyramidal muſcle appears protuberant. R R the fleſhy part inſerted into the tenth rib. S T the aponeuroſis which is ſimple in this part. T the aponeuroſis inſerted into the cartilage of the ninth

lb. U the fleshy part of the transverse muscle protuberant under this aponeurosis. V V the anterior of the two plates cut off, into which this aponeurosis S, splits itself, near the rectus. W W W W X X X Y the anterior of the two plates into which the left aponeurosis S divides near the rectus: This lamella is cut off according to the length of the abdomen, just by where it first joins to the aponeurosis of the external oblique muscle. W W W W X X X the rectus here appears protuberant under the aponeurosis, divided into fleshy portions W W W W, by tendinous lines X X X. The pyramidal muscle appears also protuberant under a part of this aponeurosis at Y.

Z Z Z Z Z a b c d e f g. Z Z Z Z a b c d e f g The straight muscles of the abdomen. a b c their ends, inserted into the fifth rib at a, the sixth at b, and the seventh at c d e f, g the tendinous lines. h i the white line. i an opening in that line, through which pass out, in the foetus, the umbilical arteries and vein with the urachus.

k k. k k The aponeuroses of the external oblique muscles here cut off, together with the anterior of those lamellae into which the tendons of the internal oblique muscles divide themselves.

l m. l m The pyramidal muscles. m their beginning from the ligaments by which the ossa pubis are tied together before, at their synchondrosis.

n The synchondrosis of the ossa pubis, tied by its ligaments.

o The penis cut off.

p q. p q The cremasters. q their beginning, which goes off from the flesh of the internal oblique muscle.

In the Lower Extremities.

r r The chords of the spermatic vessels.

s t. s t The middle gluteus. t its origin from the spine of the ilium.

u v w. u v w The least of the glutei. v The origin from the spine of the ilium. w the tendon inserted at the root of the greater trochanter.

x x The beginning of the straight muscles of the thighs cut off.

y y The internal iliacs.

z z The great psoae, or lumbal muscles of the thighs.

G G The pectinei muscles of the thighs.

D H. D H The long abductors of the thighs. *H* its origin from the ligaments that tie the synchondrosis of the ossa pubis.

L X. L X The gracilis. *X* its origin from the ligaments that tie the sychondrosis of the ossa pubis.

P P The great abductors of the thighs,

S W Y Y O a. S W Y Y O a The internal vasti. *W* the origin from the femur. *Y Y* the part where it joins to the tendon of the cruralis. *O* the tendon which is inserted into the patella at *a*. In this muscle, near the crureus, is an impression from the rectus.

b c. b c The crurei muscles. *c* the tendon.

d e e f g g h. d e e f g g h The external vasti. *e e* the origin from the thigh bone. *f* part of the tendinous beginning. *g g* the tendon inserted into the patella *h*. Near the crureus is a considerable impression made in this muscle by the rectus. See Tab. I.

i k l. i k l The tendons of the straight muscles of the thighs cut off. *k* the place where it is inserted into the patella. *l* the aponeurosis which runs from the tendon of the rectus over the fore part of the patella to the ligament that ties the patella to the tibia; afterwards joining itself to the fore part of the said ligament.

m n o. m n o The ligament that belongs to the tibia from the patella. *n* the place where it arises from the patella. *o* in this part it is fixed to the tibia beneath.

p q. p q. The tendons of the graciles, inserted into the tibia at *q*.

r r The tendons of the semitendinosi inserted into the tibiae.

s s The poplitei muscles.

v v t. v v t The biceps in each thigh. *s t* its tendinous extremity, *v* its principal part inserted into the head of the fibula, *t* the part that belongs to the tibia.

u u The solei muscles.

w x y. w x y The long peronei muscles. *x* the origin from the head of the fibula. *y* the tendon arising from the outer part of the muscular flesh.

z z The short peronei muscles.

A B C D E. A B C D E The long extensor of the toes of each foot, with the third peronei muscles. A the muscular flesh common to the extensor and peroneus. B its origin from the tibia. C the third peroneus, D its tendon. E the tendon of the long extensor of the toes, which divides into four tendons, belonging to the four small toes, of which, that belonging to the little toe arises sooner, and upon the leg itself, but the rest arise where they are about to pass the ligament q in Tab .I. Where the long extensor and peroneus are joined, there is a considerable impression from the tibialis anticus. See Tab. I.

F G G. F G G The tibiales postici. F the part that comes from the fibula. G G the part arising from the tibia.

H I K L M. H I K L M The proper extensors of the great toes. I the tendon inserted into the last bone of the said toe.. L M a branch of the tendon, which I have sometimes found inserted into the first bone of that toe.

N O O P. N O O P The solei. O O the origin from the tibia. P the tendinous surface, where the tendon arises.

Q R R S. Q R R S The long flexors of the toes. R R the origin from the tibia. S the beginning of the tendon.

T. T The tendon of the plantaris in each leg.

V V W X V V W X The tendons of the tibiales postici. W the end that is inserted into the navicular bone, and runs in part to the greater cuneiform bone.

Y Y The great tendons called Achillis.

Z Z The tendons of the long flexors of the toes.

a b. a b Muscular heads which go to the long flexors of the toes in the sole of the foot. b the origin from the calcanium.

c d. c d The short flexors of the toes, arising from the calcanium at d.

e The outer tail of the short flexor of the great toe.

f f g. f f The tendons of the long flexors of the great toes. At g it is confined in a ligamentary sheath, that is split into two horns.

h. h The first interossei belonging to the first of the small toes.

i k l. i k The short extensors of the toes. i the part that belongs to the great toe. k a portion running to that side of the first toe that is next the great toe, sometimes found. l the portion belonging to the first of the small toes.

m n o p q. m The common tendon of the long and short extensor of the toes, that is inserted into the bone of the second order. n a portion of the common tendon of the long and short extensor running to the third bone. o a tendon from the short extensors of the toes, to the third bone. p the common end of the two portions belonging to the third bone into which it is inserted. q an aponeurosis joining the tendon m, in part from the capsule of the joint of the toe with its metatarsal bone, and in part from the lumbrical muscle and side of the bone of the first order. The same is to be understood of the rest of the toes in each foot; except, that there is no portion from the short extensor of the toes, detached to the tendon of the little toe.

In the Arms.

r s. r s the supraspinati. s the tendon inserted into the great and rough tubercle of the humerus.

t. t The common origin of the coracobrachialis and shorter heads of the biceps muscles of the arms, from the coracoide processes of the shoulder blades.

u u The coracobrachiales, in the part v v. v v conjoined with the shorter heads of the biceps muscle of each arm.

w x y z *a b c*. w x y z *a b c* The bicipital muscles of the arms. w x the shorter head. w the part that is outwardly tendinous, x the fleshy part. y z the longer head; y the tendon by which it arises, running over the head of the humerus, and then through the sinus that is betwixt its two protuberances. z the fleshy part. *a* the common belly. *b* the aponeurosis, which it gives to the tendinous vagina of the fore-arm, here cut off. *c* the tendon by which it is inserted into the radius.

d e f g. d e f g The triceps extensor of each arm. *d* the short head, *e* the long head. *f* the brachialis externus. *g* the tendon which, arising from the surface of the brachialis externus, belongs to the posterior chondyle of the humerus.

h h i k, h h i k the internal brachiei muscles. *i* the lower part that lies near the supinator longus. *k* the tendinous surface.

l m The longer external radialis muscle of the right arm. *m* the tendon.

n o p q r The longer external radialis muscle of the left arm, here dividing itself into two, each of which form a tendon. *o* the principal tendon of the chief part. *p* the tendon of the less part which joins itself to the other tendon. *q* the common tendon, inserted into the metacarpal bone of the index.

s s. s s s s The shorter radiales externi. *s* the tendon inserted into the metacarpal bone of the index and middle finger.

t t v u w. t w The short spinators. *v u* the end inserted into the root of the tubercle of the radius, and into the radius itself below that tubercle. *w* the posterior part.

x. x x The profundi muscles bending the fingers.

y The round pronator of the radius cut off

z. z The common origins of the ulnares interni and sublimes; arising tendinous from the greater condyles of the humeri.

A. A A B The ulnares interni. B the tendon inserted into the pisiform bone.

C D E F G H I I K L M N N O O P Q Q. C D E F H I M N The sublimes. D the thicker part arising from the greater condyle of the humerus. E the portion arising by a small tendon from the ulna, near the end of the internal brachialis. F G the thinner part arising from the radius, G its origin from the radius. H I I a portion belonging to the ring-finger, I I its tendon. K L the portion belonging to the little finger, L its tendon. M N N the portion belonging to the middle finger, N N its tendon. O O P Q Q the portion belonging to the index, P its tendon; Q Q the two horns into which the tendon splits, inserted into the bone of the second phalanx of the index. In like manner are divided into horns, and inserted the tendons I L N.

R the tendon of the profundus belonging to the index.

S T. S T V W The long flexors of the thumbs. T V the tendon in the part V, as if it were split length-wise, and inserted into the last bone of the thumb.

X X The tendons of the long supinators cut off.

Y The pronator quadratus.

Z b d. a b c d The long abductors of the thumbs. a the upper part. b the tendon of the upper part, a portion of which c, that it gives to the short abductor of the thumb, is here cut off. d the tendon of the lower part.

e f. e The less extensors of the thumbs. f the tendon.

g. g The greater extensor of the thumb.

h. h i The common tendons of the greater and lesser extensors of the thumbs. i the insertion of the common tendon into the last bone of the thumb.

In the Right Hand.

k The end of the short abductor of the thumb cut off.

l m n o p The ligament of the wrist, which, with the carpal sinus, forms a channel confining the tendons in their passage from the fore-arm to the fingers and thumb, viz. of the sublimis, profundus, and long flexor of the thumb, m the origin of the ligament from the pisiform bone of the wrist, the multangular bone n, and from the navicular bone o. p the canal thro' which passes the tendon of the internal radialis muscle.

q r s t The opposing muscle of the thumb, r its origin from the larger multangular bone, and ligament of the carpus s. t its tendon inserted into the metacarpal bone of the thumb.

u v w Part of the short flexor of the thumb, which may be reckoned a second short abductor of the thumb. v its origin from the ligament of the carpus. w its tendinous end inserted into the first bone of the thumb.

x The posterior tail of the short flexor of the thumb.

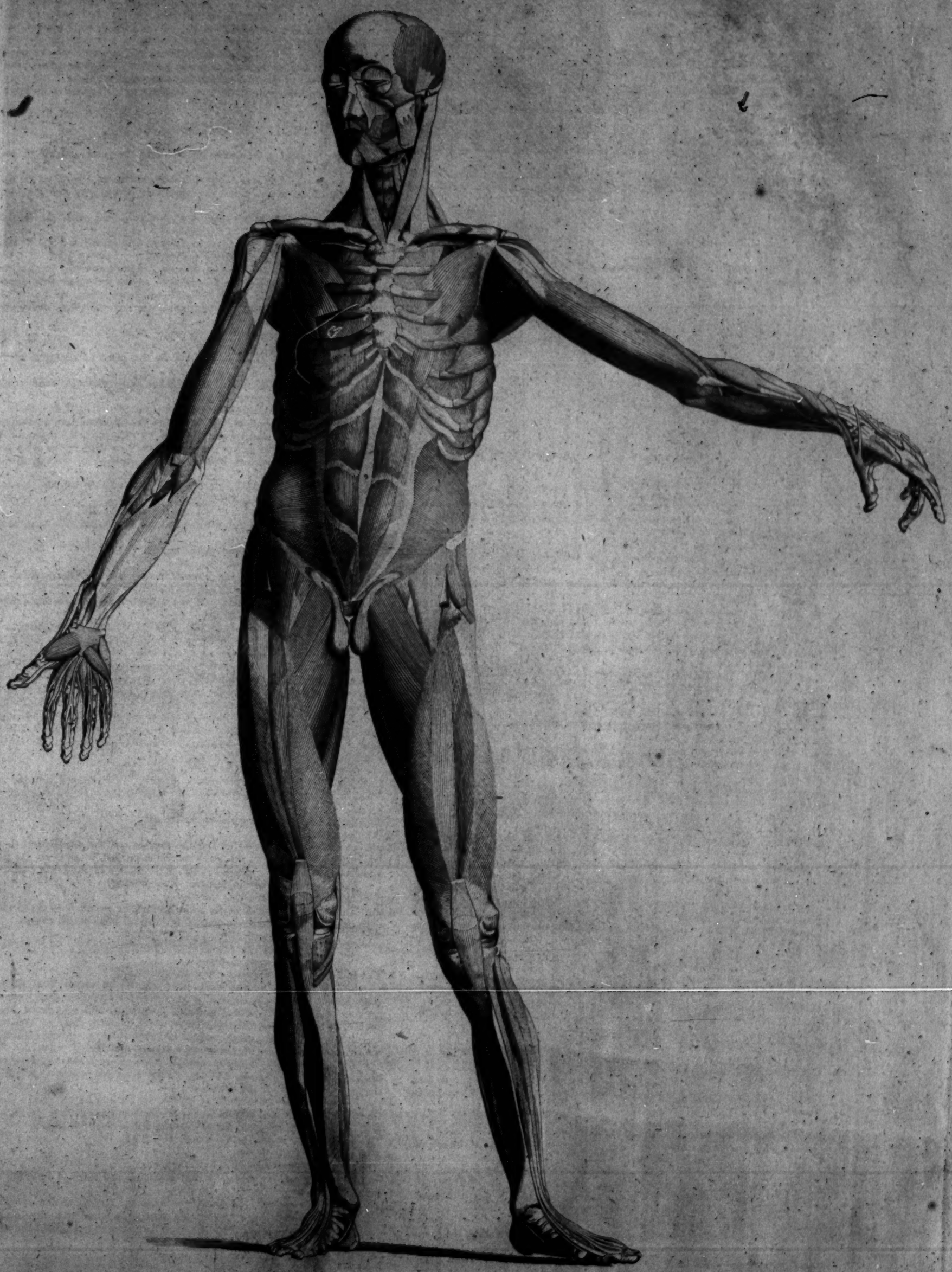
y The abductor of the thumb.

z The outermost interosseus muscle of the index.

a b The abductor of the index. *b* the tendinous end inserted into the first bone of the index.

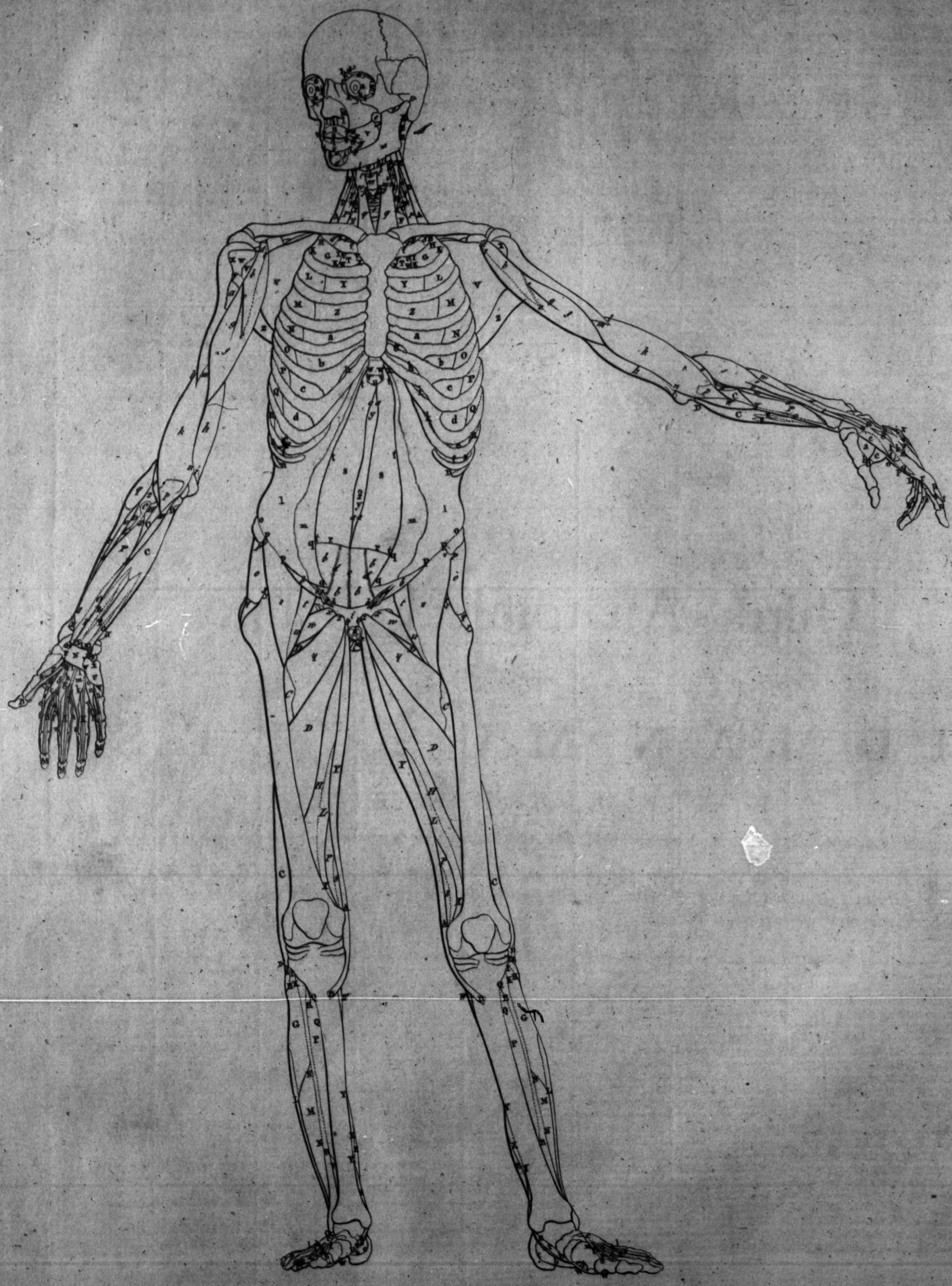
c d e. The first lumbricalis. *d* its origin from the tendon of the profundus belonging to the index. *e* the tendon that joins itself with the common tendon of the extensors of the index, and then goes to the third bone of the index.

TAB: II.



A. Bell Sculp.t

TAB. III.



A. Bell Sculp.t

g h Lumbrical muſcles, *f* the ſecond, *g* the third, *h* the fourth. They end in tendons like the firſt, which are not marked here on account of their minuteneſs. Theſe tendons join with the tendons of the outer interoſſei.

iiii. iiii. iiii. iiii The tendons of the profundus, ſlit in a manner length wiſe, and inſerted into the bones of the third order, *kkkk*.

l The poſterior or inner interoſſeus muſcle of the index, with its tendon.

m The outer interoſſeus muſcle of the middle finger.

n The common tendon of the ſecond lumbricalis and outer interoſſeus muſcle of the middle finger.

o The poſterior or inner interoſſeus muſcle of the middle finger with its tendon.

p The outer interoſſeus muſcle of the ring finger.

q The common tendon of the third lumbrical and outer interoſſeous muſcle of the ring-finger.

r The tendon of the inner interoſſeus muſcle of the ring-finger.

ſ The tendon of the outer interoſſeus muſcle of the little finger.

t The common tendon of the fourth lumbrical and outer interoſſeous muſcle of the little finger.

u u The ſmall flexor of the little finger. *u* its origin from the ligament of the carpus.

w The tendon common to the ſmall flexor and abductor of the little finger.

x x The abductor of the metacarpal bone of the little finger.

y z The abductor of the little finger. *z* its origin from the piſiform bone and ligament of the wriſt.

In the Left Hand.

C The oppoſing muſcle of the thumb.

D The aponeuroſis encompaſſing the capſule of the joint of the thumb with its metacarpal bone, connected to the ſaid capſule and to the common tendon of the extenſor of the thumb.

H The inner tail of the ſhort flexor of the thumb.

L The aponeuroſis which the inner tail of the ſhort flexor of the thumb gives to the common tendon of the extenſor of the thumb.

X P The abductor of the thumb. *P* the tendinous end inſerted into the firſt bone of the thumb.

S The abductor of the index.

W The outer interoſſeous muſcle of the index.

Y Y The tendon of the indicator.

O The head of the outer interoſſeous muſcle of the middle finger ariſing from the middle metacarpal bone.

1 The head of the inner interoſſeous muſcle of the middle finger ariſing from the metacarpal bone of the ring finger.

2 The head of the inner interoſſeus, from the metacarpal bone of the little finger.

3 The common tendon of the extenſors of the little finger cut off as it paſſes along the back of that finger.

4. 5 The tendons of the common extenſor of the fingers cut off. 4 that of the ring finger. 5 that of the middle finger, paſſing afterwards over the backs of thoſe fingers 6. 6 with the aponeuroſes they receive.

7 The tendon of the common extenſor of the fingers belonging to the index cut off.

8. 9 The common tendon of the indicator and common extenſor of the fingers belonging to the index. 9 its end inſerted into the ſecond bone of the index.

10 The aponeuroſes, which, ariſing partly from the firſt lumbrical, and in part from the abductor of the index, joins itſelf to the common tendon of the extenſor indicis.

11 The tendon of the firſt lumbrical muſcle.

12 The tendon of the firſt lumbrical muſcle, increaſed by a portion received from the tendon of the common extenſor of the index, and running to the third bone of the index.

13 The tendon of the inner interoſſeous muſcle of the index, which being enlarged by a portion received from the common tendon of the extenſor of the index, runs to the third bone of the index.

14 The common tendinous end inſerted into the third bone of the index. This is formed of the tendons 12 and 13 conjoined together.

15 The tendon common to the outer interoſſeous and ſecond lumbrical muſcle of the middle finger; which tendon being increaſed by a portion from the tendon of the common extenſor, runs to the third bone of the middle finger.

Upon the inner ſide of the fingers may be ſeen the tendons of the ſublimis and profundus.

THE

Third Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

HERE again, moſt of the parts in the preceeding Table being removed, in this third Figure, we exhibit the next Order of Muſcles, together with ſome of the Ligaments and parts of the Skeleton, which now appears more Naked.

In this figure are taken off, from the *head*, the temporal muſcle, the maſſeters, the corrugators of the eye-brows, the elevators of the upper eye-lids, the ligaments by which the junctures of the eye-lids, in the greater angles, are tied to the naſal proceſſes of the upper jaw-bones, the eye-lids themſelves, with the continuations of the orbicular muſcles which ſurround their margins, the naſals of the upper lips, the elevators of the corners of the mouth, the depreſſors of the lower lip. From the *neck*; the ſterno-cleino-maſtoidei, the elevators of the ſcapulae, the coracohyoidei, the ſternohyoidei, the digaſtric of the lower jaw, the ſtylohyoideus. From the *trunk*; the ſubclavians, the anterior ſerrati, both upper and lower, the recti, pyramidales and internal oblique muſcles of the abdomen, the cremaſters and teſticles. From the *thighs*; the middle glutei, pectinei, long abductors, the recti, internal and external vaſti, with the crurei. From the *legs* and *feet*; the ligaments belonging to the knee-pan and ſhin-bones, the tendons of the ſeminervoſi, the proper extenſors of the great toes, the long extenſors of the toes, with the tendinous ends belonging to the firſt three of the ſmaller toes, the peronei tertii, the tendons of the plantares, the ſolei, the tendons of Achilles, the ſhort flexors of the toes, the outer tail of the ſhort flexor of the great toe, the capſule or ſheath confining the tendon of the long flexor of the great toe, near the firſt bone of the toe. From the *arms*; the ſupraſpinati, the bicipital flexors, with the long and ſhort extenſors of the cubit. From the *fore-arms* and *hands*; the ſublime flexors, the ulnaris interni, ends of the long ſupinators, long abductors of the thumbs, and leſs extenſors of the thumbs. From the *right hand*; the end of the ſhort abductor of the thumb, part of the ſhort flexor, which may be reckoned a ſecond abductor, the oppoſer of the thumb, the abductor of the index, the ſmall flexor and abductor of the little finger. Alſo from the cubit and *left-hand* are taken the tendon of the indicator, the greater extenſor of the thumb. The common tendon of the greater and leſs extenſor of the thumb, with its adjoining aponeuroſis that inveſts the capſule of the joint of the thumb with its metacarpal bone, the oppoſer of the thumb, the abductor of the index, with its aponeuroſis that joins to the common tendon of the extenſors of the index.

In the Head and Neck.

a a The balls of the eyes.

b The cartilage of the hole through which paſſes the tendon of the upper oblique muſcle of the eye; which cartilage ſupports and confines the ſaid tendon.

c d The tendon of the ſuperior oblique muſcle of the eye, *c* part of it going to the notch or pully near the internal ſide of the orbit. *d* the part that runs back to the globe of the eye after paſſing the pully.

e e The ſtraight muſcles turning the eyes upward, and inſerted into their hard coats.

f The rectus that turns the eye to the noſe, fixed into the ſclerotica.

g The rectus that turns the eye from the noſe, fixed to the ſclerotica.

h h The recti depreſſing the eyes, fixed into the ſclerotica.
i. i k The lower oblique muſcles of the eyes. k their origin from the upper jaw, in the bottom of the orbit, near its edge, betwixt the future proper to the ſaid jaw, and the os unguis.
l. l m The depreſſors of the wing of the noſtrils. m the end inſerted round the root of the wing.
n o p p Part of the ſphincter of the mouth in the upper lip. o the part that is in the red margin of the lip. p p denote where the depreſſors of the corners of the mouth are cut off, from their inſertion into the ſaid ſphincter, where it ſurrounds the upper lip at the angles of the mouth.
q r s t t Part of the ſphincter of the mouth that is in the lower lip. q the part in the red margin of the lip. s here it paſſes under the faſciculus z, and is continued to the buccinator, and to part of the elevator of the corner of the mouth, and of the greater zygomatics joining it. t t portions to the ſphincter of the mouth, which they join from the lower jaw; afterwards they paſs under portions of the buccinators z, and join themſelves to the ſaid buccinators.
u A ſinus or ſpace betwixt the portion of the buccinator z, and the portion t, where the latter joins the ſphincter of the mouth; in which ſpace are fixed ſome glandules.
v. v w x y z *a* The buccinators. w the part that goes into the ſphincter of the mouth in the upper lip. x here part of it joins to the elevator of the corner of the mouth, and to part of the greater zygomatics. y the portion that goes into the ſphincter of the mouth in the lower lip. z the portion that goes to the upper lip, and there joins the internal part of the ſphincter of the mouth. *a* here it continues itſelf to the portion t, that joins the ſphincter of the mouth.
b. b c d The elevators of the chin. *c* the part in which they are joined together. *d* the fibres they intermix with the fat of the chin.
e e The external pterygoideus, having a tendinous end.
f The internal pterygoideus.
g The mylohyoideus, inſerted into the baſe of the hyoidal bone.
h The baſiogloſſus ariſing from the baſis and horn of the hyoidal bone.
i Ceratogloſſus ariſing from the horn of the hyoidal bone.
k l l The os hyoides. *k* its baſe. *l l* its horns.
m m The larynx. *m* the thyroide cartilage: Betwixt *x y* and *z* is its upper proceſs. *n* the cricoide cartilage.
o The wind-pipe.
p. p The cricothyroidei muſcles. *p* the anterior part ariſing from the cricoide cartilage: And a little below this part is its back part.
q q r ſ. q q r ſ ſ The ſternothyroidei. *r* a ſeparate portion that joins it; *ſ* part of its extremity inſerted into an eminence of the thyroide cartilage, which runs obliquely through its external ſide: *ſ* a part that joins itſelf to the poſterior edge of the hyothyroidei, and with that belongs to the horn of the hyoidal bone.
v t u w. v t u w The hyothyroidei. *t* the origin from the horn and baſis of the hyodial bone. *u w* the extremity inſerted at the bottom of the margin of the thyroide cartilage *u*, before the eminence which runs obliquely through the outſide of the ſaid cartilage. *w* the eminences themſelves.
x The common extremity into which the ſtylopharyngeus, palatopharyngeus, and ſalpingopharyngeus conjoin themſelves, the part produced from the ſtylopharyngeus.
y The ligament which belongs to the end of the horn of the hyodial bone, from the upper proceſs of the thyroide cartilage.
z The lower conſtrictor of the pharynx.
C C The internal great recti muſcles of the head.
D H The longus colli. *H* the end coming from the back to the tranſverſe proceſs of the ſecond vertebra of the neck; the tendinous part of which end, ſee in the table following.
L L The firſt anterior intertranſverſales of the neck.
X X The elevators of the firſt ribs.
P S W Y O. P S W Y O The firſt or anterior ſcaleni. *S* the origin from the firſt rib. *W Y O* its three extremities, of which *W* belongs to the tranſverſe proceſs of the ſecond vertebra of the neck, reckoning from the back; *Y* to the third, and *O* to the fourth vertebra.
A B C D E. A C D E The middle ſcaleni. B the origin from the firſt rib. C D E the extremities of which C belongs to the tranſverſe proceſs of the firſt vertebra of the neck from the back, D to the fifth, and E to the ſixth and ſeventh.
E The trachelomaſtoideus muſcle.
E The complexus muſcle.
Æ The upper oblique muſcle of the head.
F F. F F Betwixt *q* and *r* appears the pleura.

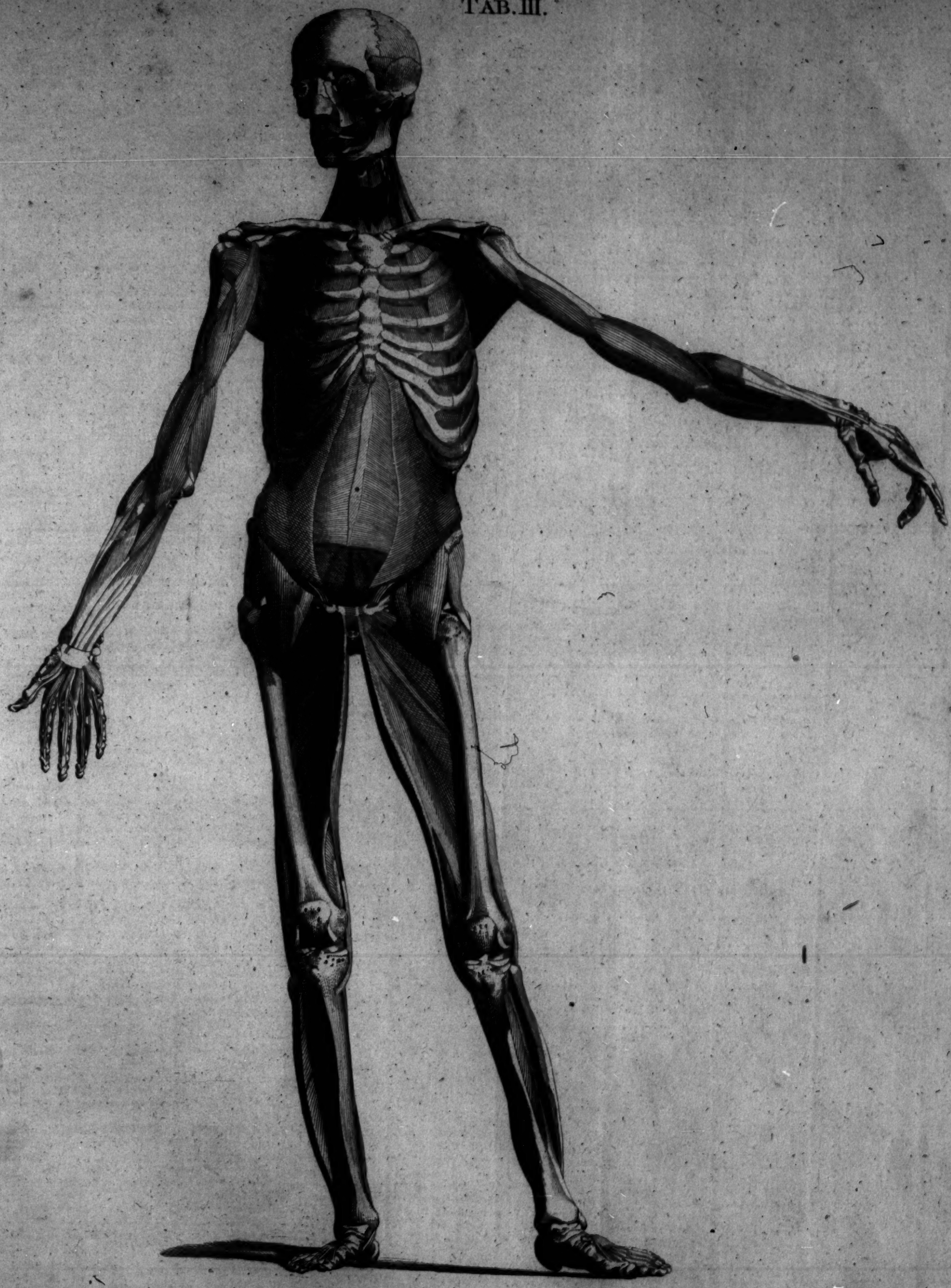
In the Trunk and Thighs.

G H I K K. L M N O P Q R S: G H I K K. L M N O P Q R S The external intercoſtals. G H I K K the firſt, L the ſecond, M the third, N the fourth, O the fifth, P the ſixth, Q the ſeventh, R the eighth, S the ninth. The firſt ariſes from the cartilaginous end of the firſt rib, H from the bony part of the rib, is inſerted into the bony part of the ſecond rib K K; in the ſame manner the following muſcles ariſe from the bony part of the upper rib, and are inſerted into the bone of the lower rib.
T U V W X Y Z. a b c d e f: T U V W X Y Z. a b c d e f The internal intercoſtals. T U V W X the firſt, Y the ſecond, Z the third, a the fourth, b the fifth, c the ſixth, d the ſeventh, e the eighth, f the ninth. The firſt ariſes from the cartilaginous end of the firſt rib U, and from the ſternum V; it is inſerted into the bony part of the ſecond rib W, and its cartilaginous end X. In the ſame manner appears in the following muſcles how they ariſe from the cartilaginous end and bony part of the upper rib, and are inſerted into the cartilaginous and bony part of the lower rib. g h i k: h denote parts of thoſe intercoſtals which are inſerted betwixt the cartilages of thoſe ribs, after the meeting or conjunction of their cartilages.
l m n o p p q q r. l m n o p p q q r The tranſverſe muſcles of the abdomen; l the fleſhy part, m the aponeuroſis, n the origin from the cartilaginous end of the eleventh rib, o the origin from the ſpine of the ilium, p p the margin that comes from the tendinous edge of the external obliquus of the abdomen; q q here is cut off a part of the aponeuroſis, which paſſes before the rectus and pyramidalis muſcle. r the bottom margin of the upper part of the aponeuroſis, which paſſes behind the rectus, and immediately adheres to the peritonaeum.
s t t t. s t t t The poſterior lamellæ of the aponeuroſes of the internal oblique muſcles ſpread over the aponeuroſes of the tranſverſe muſcles. t t t here it is cut off in the part where it firſt joins with the aponeuroſes of the tranſverſe muſcles.
u v w. v w Here the aponeuroſes of the tranſverſe, with the poſterior covering lamellæ of the aponeuroſes belonging to the internal oblique muſcles, inſert themſelves into the fore-part of the enſiform cartilage, not far from its tip u, into the edges of the ſaid cartilage v v, and into its bony part w w.
x The triangular muſcle of the ſternum conjoined with the tranſverſalis of the abdomen, and inſerted with it. The ſame alſo holds on the other ſide.
y y The lineæ albæ. z The opening in it, through which, in the embryo, paſs out the umbilical arteries, with the umbilical vein and urachus.
a a. a a From hence are cut off the aponeuroſes of the external oblique muſcles of the abdomen, with the anterior lamellæ of the aponeuroſes belonging to the internal oblique muſcles.
b b b b b b c d d The peritonæum. *c d d* the footſteps of the ligament *c*, which was formerly the urachus, and of the ligaments *d d*, which were formerly the umbilical arteries.
e f g h. e f g h The chords of the ſpermatic veſſels. *e f* the two veins. *g* the artery, the veins, together with the artery, paſs along beneath the tranſverſe muſcle, through the peritonæum to the upper part of the os pubis; to theſe veſſels the vas deferens *h* joins itſelf coming out of the pelvis, and then paſſes down together with them, through the groin to the ſcrotum.
i The ſynchondroſis, or conjunction of the oſſa pubis, tied together by their ligaments.
k The penis cut off. See Table IV. following.
l The external ſphincter of the anus.
m The accelerator urinæ; and the ſame is on the other ſide.
n The erector penis, which is alſo on the other ſide.
o p q r ſ. o p q ſ The leſs glutei. *p* the origin from the os ilium. *q* the tendon which is inſerted into the root of the great trochanter *r*. *q* the fore-part of the muſcle.
s v. s v The internal iliacs. *v* the origin from the ſpine of the ilium.
t u. t u The great pſoæ, or lumbal muſcles. *u* the tendon to which joins the fleſh of the iliacus internus.
w x. w x The external obturators. *x* the origin from the os pubis.
y z C. y z C The ſhort abductors of the thighs, in which are impreſſed the footſteps of the long abductors and pectinei: ſee Tab. II. *z* the head, which is outwardly tendinous, ariſing from the os pubis near its juncture. *C* its tendinous end from the ſame part.
D D H L X. D D H L X The large adductors of the thighs. *D D* the part which is inſerted into the ridge or ſpine of the thigh bone. *H L X* the other part belonging to the condyle of the thigh bone. *L* its tendinous ſurface, paſſing into the tendon *X*.
P S W. P S W The ſemimembranoſi. *S* the tendinous ſurface paſſing into a tendon. *W* the thinner portion which ſends out the tendon belonging to the internal margin of the tibia, or ſhin bone.
Y O A B, Y O A B The graciles, in which are impreſſed the footſteps of the long adductors of the thighs; ſee Tab II. *O* the origin from the ligament, tying together the oſſa pubis at their juncture. A the tendon, inſerted into the tibia B.
C D E F. C D E F The ſhorter heads of the bicipital muſcles of the legs. D E F the tendinous end, of which the principal part E, is inſerted into the head of the fibula; F the part belonging to the tibia.

In the Legs and Feet.

G H I K K L. G H I K K L The long peronei, in which are impreſſed the marks of the long extenſors of the toes (ſee Tab. II.) H the beginning of its upper origin from the head of the fibula, and from the tibia I. K K the beginning of its lower part ariſing from the ſpine of the fibula. L the tendon ariſing from the outer part of its fleſh.
M N N. M N N O The ſhort peronei, in which are impreſſed the marks of the long extenſors of the toes; ſee Tab. II. N N the origin from the fibula. O the tendon.
P Q Q R R S S T U. P Q Q R R S S T U The tibiales poſtici. Q Q the origin from the tibia, and from the ſpine of the fibula. R R S S T U the tendon, which being partly inſerted into the navicular bone T, the portion U runs to the greater cuneiform bone.
V W. W W The long flexors of the great toes. W the tendon.
X Y Y Z a. X Y Y Z a The long flexors of the toes. Y Y the origin from the tibia. Z the beginning of the tendon, a the tendon itſelf.
b c. b c The portions which join the long flexors of the toes in the ſoles of the feet. c the origin from the calcaneum.
d The inner tail of the ſhort flexor of the great toe, that is next the ſmall toes.
e f g h i k l. e f g h i k l The ſhort extenſors of the toes, which divide into five portions. f the tendon of the portion belonging to the great toe, inſerted into the firſt bone at g. h the tendon of a portion ſometimes found running to the ſide of the firſt toe that is next to the great toe. i the tendon of the portion belonging to the firſt of the ſmall toes, k that to the ſecond, and l to the third.
m m. m The firſt interoſſeus muſcles of the firſt ſmall toes. Betwixt i and k in the left foot is the ſecond interoſſeus of the firſt ſmall toe, betwixt k and l, left, is the ſecond interoſſeus of the ſecond ſmall toe.
n o. p left. The tendons of the long extenſors of the toes cut off. n that which belongs to the firſt of the ſmall toes, o that of the ſecond, p that to the third, and ſo likewiſe in the right foot.
q The common tendon of the long and ſhort extenſors of the toes inſerted into the bone of the ſecond phalanx. r part of the ſame, running to the third bone. s the tendon to the third bone from the tendon of the ſhort extenſor of the toes. t the common end of the two portions to the third bone, wherein it is inſerted. u an aponeuroſis joining to the tendon q, and going partly to the capſule of the joint of this toe, with its metatarſal bone, coming partly from the interoſſeus of that ſide, in part from the lumbrical muſcle, and partly from the ſide of the bone of the firſt phalanx. The ſame holds in the ſecond and third of the ſmall toes of this foot, and in the three firſt of the left foot.

TAB. III.



A. Bell Sculp.t

In the Shoulders, Arms, and Hands.

v v w x y. v x The ſubſcapulares. w x the tendinous part of its extremity, inſerted into the leſs unequal protuberance of the upper head of the humerus, at x. y the fleſhy part of its end inſerted into the humerus below its head.

z a. z The teres major. *a* its tendinous end inſerted into the humerus.

b c d e e. b c d e e Part of the ſhorter heads of the bicipital muſcles of the arms, outwardly tendinous, and cut off at *e e*; having a common origin with the coracobrachiales at *d d*, from the coracoide proceſs of the ſcapulæ; at *e e*. *e e* they are conjoined with the coracobrachiales.

f g. f g The coracobrachiales, divided by a nerve that paſſes thro' in the part *g*.

h i. h i The external brachiales. *i* the tendon, which, ariſing from its ſurface, ends in the poſterior condyle of the humerus.

k l m n o p. k l m n o p The brachiales interni. *l m* the forked beginning by which it ariſes from the humerus. *n* its origin from the edge of the humerus. *o* the lower part upon which lies the long ſupinator. *p* the tendinous ſurface.

q r The longer external radialis muſcle of the right hand. *r* the tendon.

s v t u The longer external radialis muſcle of the left hand, which here divides itſelf into two. *s* the tendon of the principal part, which is alſo itſelf the moſt conſiderable. *v* the tendon of the leſs portion which joins itſelf with the other, and together forms the common tendon, *t* inſerted into the metacarpal bone of the index *u*.

w x. w w x x y The ſhorter external radial muſcles. *x x* the tendon inſerted into the two metacarpal bones *y* of the index and middle finger.

z *C D H. z H* The ſhort ſupinators. *C D* the end which is inſerted at the root of the tubercle of the radius, and into the radius itſelf, below the ſaid tubercle *D*. *H* the back part.

L The extremity of the round pronator which is here cut off.

X X The pronator quadratus, or ſquare pronator of the radius

P P S S W Y O A B. P W Y O The long flexors of the thumbs. *S S* its origin from the radius, *W Y* the portion which joins it ariſing from the greater condyle of the humerus, but ſeldom found; and which forms a tendon *Y*, that joins itſelf to the fleſhy part of the flexor, and makes up the firſt riſe of its tendon *O A B*, of which the part *O* adheres to the fleſhy portion of the flexor, the part A going along by the metacarpal bone of the thumb, is there in a manner ſplit longitudinally, and at length inſerted into the extremity of the laſt bone of the thumb B.

C C D E F G H H I I K K L L M M M M. C C D E F I K L. The profound flexors. D its origin from the ulna, E F G three tendons ariſing from its fleſhy belly, and betwixt which are fleſhy fibres. The firſt of theſe, E, goes into the tendon of the index H H; the ſecond, F, into the middle tendon I I; and the third, G, into the two K L, of which one K K belongs to the ring finger, and the other to the little finger L L. Where theſe tendons run along the fingers and palm, they are in a manner ſlit longitudinally, up to their extremities M M M M, which are inſerted backwards into the bones of the third or laſt phalanx.

In the right Hand.

N O P Q R The ligament of the wriſt, which, together with the carpal ſinus, forms a canal that confines or retains the tendons coming from the fore arm to the fingers and thumb, namely, of the ſublimis, profundus, and long flexor of the thumb. O its origin from the navicular bone of the wriſt, and from the internal protuberance of the larger multangular bone P, from the piſiform bone Q, and from the crooked proceſs of the cuneiform bone R, S the canal through which paſſes the tendon of the internal radialis.

T The ligament from the piſiform bone belonging to the fourth metacarpal bone.

U V W X Y The adductor of the metacarpal bone of the little finger. V its origin from the crooked proceſs of the cuneiform bone, and of the ligament of the wriſt W. It is inſerted into the metacarpal bone of the little finger at X Y.

Z Z a The ſhort flexor of the thumb, a its tendinous end inſerted into the ſeſamoide bone of the thumb which is fartheſt from the index.

b b The adductor of the thumb. c d d e f the firſt lumbrical. d d its origin from the tendon of the profundus belonging to the index; and from the thicker part of thoſe two tendons, in which the profundus is in a manner divided longitudinally. e the aponeuroſis which joins it with the aponeuroſis of the abductor indicis, and with that communicates with the common tendon of the extenſor indicis. f the tendon which joins itſelf with the common extenſor of the index, and then goes to the third bone of the index.

g h i The ſecond lumbrical muſcle. h i its origin, from the tendon of the profundus of the middle finger h, and from the thicker part of thoſe into which that tendon is in a manner ſplit longitudinally: But the thinner part of it ariſes from the tendon of the profundus i, belonging to the index. Its tendon joins that of the former interoſſeus of the middle finger.

k l m The third lumbrical muſcle. l m its origin from the tendon of the profundus belonging to the middle finger l, and from the thinner portion of thoſe into which it is ſplit in a manner longitudinally; alſo from the tendon of the profundus the thicker part of it belonging to the ring finger m. Its tendon joins the tendon of the outer interoſſeus of the ring finger.

n o The fourth lumbrical muſcle. o its origin from the tendon of the profundus belonging to the little finger; and from the thicker of thoſe portions into which the tendon is in a manner ſplit longitudinally. Its tendon joins that of the outer interoſſeus of the little finger.

p The tendon common to the fourth lumbrical muſcle with the outer interoſſeus of the little finger; which tendon joins itſelf with that of the common extenſor, and goes to the third bone of the little finger.

q The tendon of the poſterior or inner interoſſeus muſcle of the ring finger, where it joins with the tendon of the common extenſor, running afterwards to the third bone of the ring finger.

r The outer interoſſeus of the ring finger.

s The tendon common to the third lumbrical muſcle, with the outer interoſſeus of the ring finger, which tendon joins itſelf with that of the common extenſor, and goes to the third bone of the ring finger.

t u The inner interoſſeus of the middle finger. u the tendon by which it joins the tendon of the common extenſor, and goes to the third bone of this finger.

v The outer interoſſeus of the middle finger.

w The tendon common to the ſecond lumbricalis and outer interoſſeus of the middle finger, which joining the tendon of the common extenſor, goes to the third bone of the middle finger.

x y The inner interoſſeus of the index. y the tendon by which it joins the tendon of the common extenſor of the index, and then goes to the third bone of the index.

z The outer interoſſeus of the index, its tendinous end being inſerted into the firſt bone of the index.

In the left Hand.

a b The ſhort flexor of the thumb. b the tendinous expanſion, by which it joins the aponeuroſis that inveſts the capſule of the joint of the thumb with its metacarpal bone, and therewith joins to the tendon of the common extenſor of the thumb.

c d The adductor of the thumb. d the tendinous end inſerted into the firſt bone of the thumb.

e f The outer interoſſeus of the index, ariſing from the metacarpal bone of that finger, and inſerted with its tendinous end f, into the firſt bone of the index.

g The head of the outer interoſſeus of the middle finger, ariſing from the metacarpal bone of that finger.

h The head of the inner interoſſeus of the middle finger, ariſing from the metacarpal bone of the ring finger.

i The head of the inner interoſſeus of the ring finger, ariſing from the metacarpal bone of that finger.

k The tendon of the indicator muſcle cut off.

l The tendon of the common extenſor to the index cut off.

m The tendon common to the indicator, and common extenſor belonging to the index; n its extremity inſerted into the third bone of the index.

o p q The firſt lumbrical muſcle. p the tendon. q the aponeuroſis which joins it with the aponeuroſis of the abductor indicis, and with that adheres to the tendon of the common extenſors of the index. r the tendon of this muſcle conjoined with the tendon of the common extenſors of the index, and, being increaſed by a portion received from thence, it runs down s, to the third bone of the index.

t The tendon of the inner interoſſeus of the index, which being increaſed by a portion received from the tendon of the extenſors common to the index, runs to the third bone of the index.

u The tendinous end common to the tendons s and t joined together in one, and inſerted into the third bone of the index.

v w The tendons of the common exenſors cut off, belonging to the middle finger v, and to the ring finger w; after which they run down the backs of the fingers with the aponeuroſes which they receive.

x The tendon of the common extenſors, to the little finger cut off, deſcending along the back of that finger.

y The tendon common to the outer interoſſeus of the middle finger, and ſecond lumbrical muſcle; which tendon having received a portion from the common extenſor, that ſupplies the middle finger, is thereby enlarged, and joins itſelf with the tendon z of the inner interoſſeus of the ſame finger; it is alſo increaſed by a portion which it receives from the tendon of the common extenſor belonging to the middle finger; and the common tendinous end, ariſing from this conjunction, then ends in the third bone of this finger.

THE

Fourth Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

IN this Figure, which repreſents the fourth order of the muſcles, we have not only removed moſt of the outer parts of the Figure laſt preceding, but we have alſo taken away every thing from the bony cavities of the eyes, except the muſcles; from the neck we have removed the whole pharynx and gula, together with the larynx and windpipe; from the opened thorax all the parts that are above the diaphragm, the heart, lungs, pericardium, and two pleuræ: Alſo the whole peritonæum, with the abdominal viſcera which it contains, and whatever elſe lies near the loins on this ſide, except the muſcles.

Here, from the third table, are taken off from the *head*, balls of the eyes, with the extremities of the muſcles inſerted into them, the cartilage of the notch or pully through which the tendon of the obliquus ſuperior paſſes to the eye, the depreſſors of the ſides of the noſe, the ſphincter of the mouth, the buccinators, the elevators of the chin, the external pterygoidei. From the *neck*, the mylohyoidei, the baſiogloſſus, the ceratogloſſus, hyoidal bone, larynx, windpipe, cricothyreoidei, ſternothyreoidei, hyothyreoidei, the common extremity in which the ſtylopharyngeus, palatopharyngeus, and ſalpingopharyngeus join together, and the part produced from the ſtylopharyngeus; the ligament that goes from the upper proceſs of the thyroide cartilage, to the end of the horn of the os hyoides, the lower conſtrictor of the pharynx, the larger internal ſtraight muſcles of the head, the firſt or anterior ſcaleni, the trachelomaſtoideus, complexus, and two pleurae. From the *trunk* are taken the left external intercoſtals, the anterior extremities of the fourth, fifth, ſixth, ſeventh, eighth, ninth, and tenth ribs, together with the lower part of the breaſt-bone, and the intermediate intercoſtal muſcles; the tranſverſe muſcles of the abdomen, with the poſterior plates of the aponeuroſes, belonging to the internal obliqui of the abdomen, the triangulares ſterni, the linea alba, chords of the ſpermatic veſſels, and peritonaeum. From the *pelvis* are taken the leſs glutei. From the *thighs* the ſhort abductors, the ſemimembranoſi, graciles, and bicipital muſcles of the legs. From the *legs* and *feet* are taken the long peronei, the long flexors of the great toes, the long flexors of the ſmall toes, the muſcular portions which join the long flexors of the toes in the ſoles of the feet, the ſhort extenſors of the toes, the tendons of the long extenſors of the toes, together with the other tendons and aponeuroſes ſtretched over the backs of the toes: Alſo from the left foot is taken the inner tail of the ſhort flexor of the great toe. From the ſhoulder blades are taken the teretes majores. From the arms the coracobrachiales, together with the ſhorter heads of the bicipital muſcles of the arms, and the brachiales external and internal. From the *fore-arms* and *hands* are taken the longer and ſhorter external radiales, the long flexors of the thumbs, and the profundi: From the right cubit the cut extremity of the pronator teres. Alſo from the right hand is taken the internal ligament of the wriſt, the ligament from the piſiform to the fourth metacarpal bone, the adductor of the metacarpal bone of the little finger, and the lumbricales. From the left hand are taken all the muſcles, tendons, and aponeuroſes, except the adductor and ſhort flexor of the thumb.

In the Head, Neck, and Trunk.

a b b. b b The elevators of the upper eye-lids. b b the extremity cut off.

c d The upper obliquus of the eye. c its origin from the internal ſide of the margin of the optical hole. d the end cut off, where it enters the pulley.

e f. f The ſtraight elevators of the eyes. e the origin, partly from the upper ſide of the margin of the optical hole, and in part betwixt the ſaid hole, and what follows below it. f the extremity cut off.

g h The ſtraight adductor of the eye. g its origin from the edge of the optical hole towards the noſe. h its extremity cut off.

i l. k l The ſtrait abductor of the eyes. i the origin from the lower part of the margin of the hole that lies below the optical foramen; it beginning where the round hole is near the ſlit into which it opens. l the extremity cut off.

l m. n The ſtrait depreſſors of the eyes. m the origin from the lower part of the bony portion, which divides the optical hole, and from thence downward.

o p q. o q The lower oblique muſcles of the eyes cut off where they inſert themſelves into their globes. p the origin from the edge of the bony orbit. q the inner part.

r The internal pterygoideus.

s The upper oblique muſcle of the head.

t u v w x y z *a*. t u w x y z *a* The long muſcles of the neck. t u v w x the principal part which belongs to the bodies of the vertebrae, a part of which, marked u, is tendinous. v w x the heads from a tendinous origin, ariſing from the tranſverſe proceſſes of the vertebrae of the neck: v that from the fourth, w from the third, x from the ſecond. y z *a* the part which belongs to the tranſverſe proceſſes, the tail of which z *a* belongs to the tranſverſe proceſs of the ſecond vertebra of the neck, being tendinous in the part *a*.

b c d e f g h i k l m n. *b d e f g h i k l* The middle ſcaleni. *c* the origin from the firſt rib. *d e* the tail belonging to the tranſverſe proceſs of the ſecond vertebra of the neck, *e* the tendinous end. *f g* the tail to the ſecond, *g* the tendinous end. *h i* the tail to the third, *i* the tendinous end. *k l* the tail to the fourth, *l* the tendinous end. *m* the tail to the fifth. *n* the part which divides into the two laſt tails.

o p q r: *q r* The intertranſverſales on the foreſide of the neck. *o* the fourth, *p* the third, *q* the ſecond, *r* the firſt.

f. f The elevators of the firſt ribs inſerted into thoſe ribs.

s s v v t t u w x y z A The external intercoſtals. *s s* the firſt, &c. the left are here taken away.

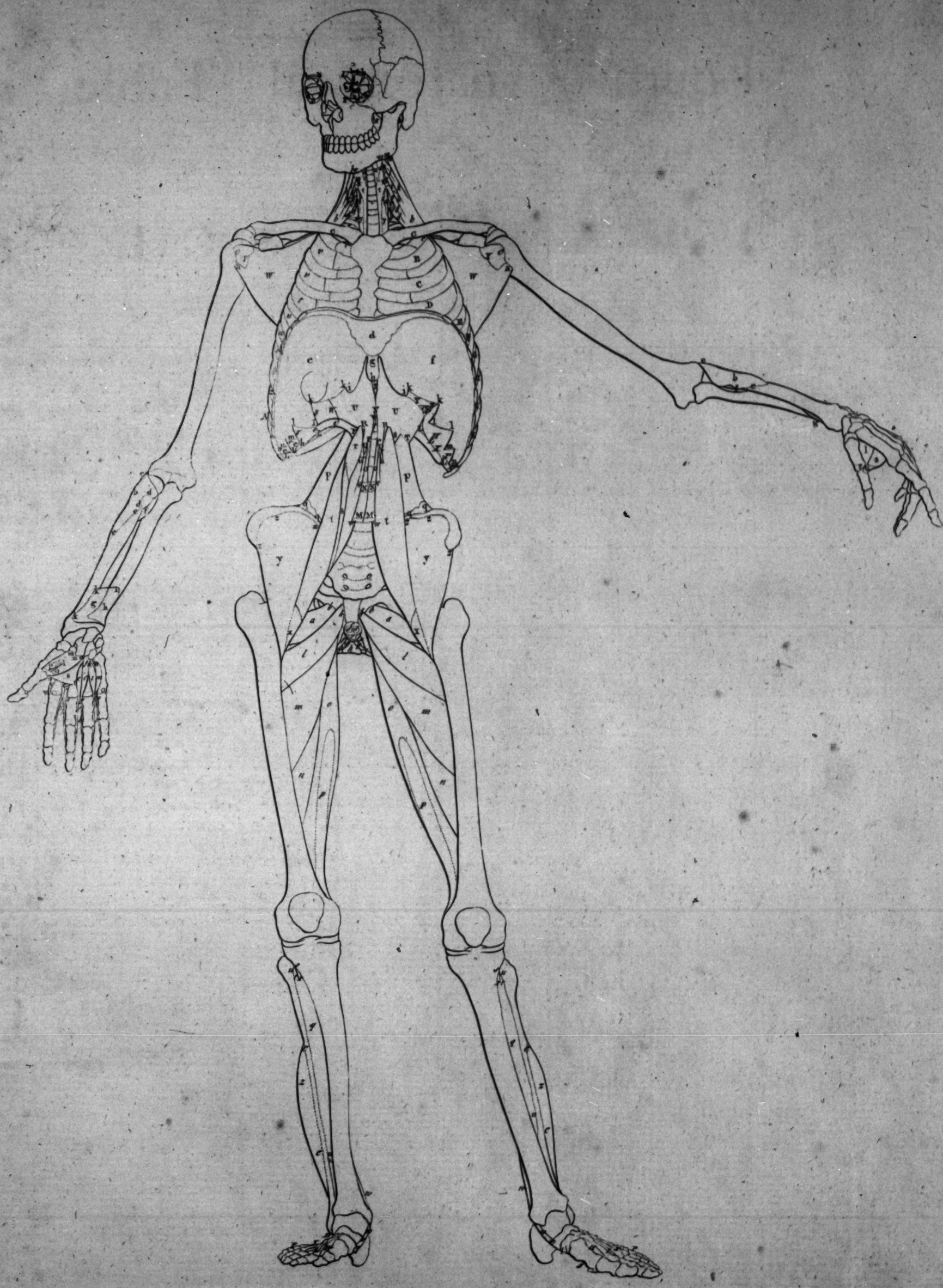
B C C D E F G H I K L L. B C C C D L L L The internal intercoſtals. B B the firſt, &c. L L. L L L the eleventh.

M M N N O O P P Q Q R R S T U U V W X Y Z *G D H L X P P S S S W Y O* a b c c d e f g h i i k k k k l l l l m m n n o o The diaphragm. M M N N O O P P Q Q R R S T U U V W X Y Z *G D H L X P P S S S W Y O* a b c c that part which lies next the abdomen. d e f g h i i k k k k l l l l m m n n o o the part which lies next the thorax. M N O P. M N O P the firſt heads; M M the tendinous expanſions which ariſe from the ligaments, which run on the ſurfaces of the bodies of the vertebrae of the loins, and join to thoſe heads outwardly; at N N below they ariſe with a thick tendon O, from the lower part of the body of the third vertebra of the loins: P P the fleſhy portions in which thoſe tendons terminate. Q Q the ſecond heads. R R the third heads. S S the fourth head of the left ſide. T a beginning which I have ſometimes found ariſing from the ſurface of the quadratus of the loins. U U the firſt fleſhy parts of the diaphragm formed by the conjunction of its heads. V a portion of the left firſt head going to the firſt fleſhy portion of the right ſide, and afterwards running through the right margin of the hole through which the gula paſſes out. W part of the firſt right head, which going behind the portion V, croſſes the ſame, and goes beyond it in the firſt left fleſhy part. X the hole through which the gula paſſes out. Y Z *G D* the left part of the middle tendon, of which the part Y ariſes from the firſt fleſhy portion, and goes into the ſecond fleſhy portion of the left ſide Z; *G* a part climbing over the former and croſſing the ſame. *D* climbs over the next part, *G* croſſes it and goes into the ſecond fleſhy portion of the left ſide in the lower part. *H* the ſecond left fleſhy portion; *L X* its extremity inſerted into the twelfth rib as well the bony part *L*, as the cartilaginous *X*: *P P* the margin of it cut off where it was continued to the tranſverſalis of the abdomen betwixt the two laſt ribs. *S S S W* the ſecond right fleſhy portion, here *W* firſt climbing over and croſſing, ſoon afterwards becomes tendinous.

In the Trunk and lower Extremities.

Y O a portion ſometimes found in one, and ſometimes in both ſides, forming the lower margin of the diaphragm in this part; and which in this body (but variouſly in others) ariſes from the tranſverſe proceſs of the fourth ver-

TAB. IV.



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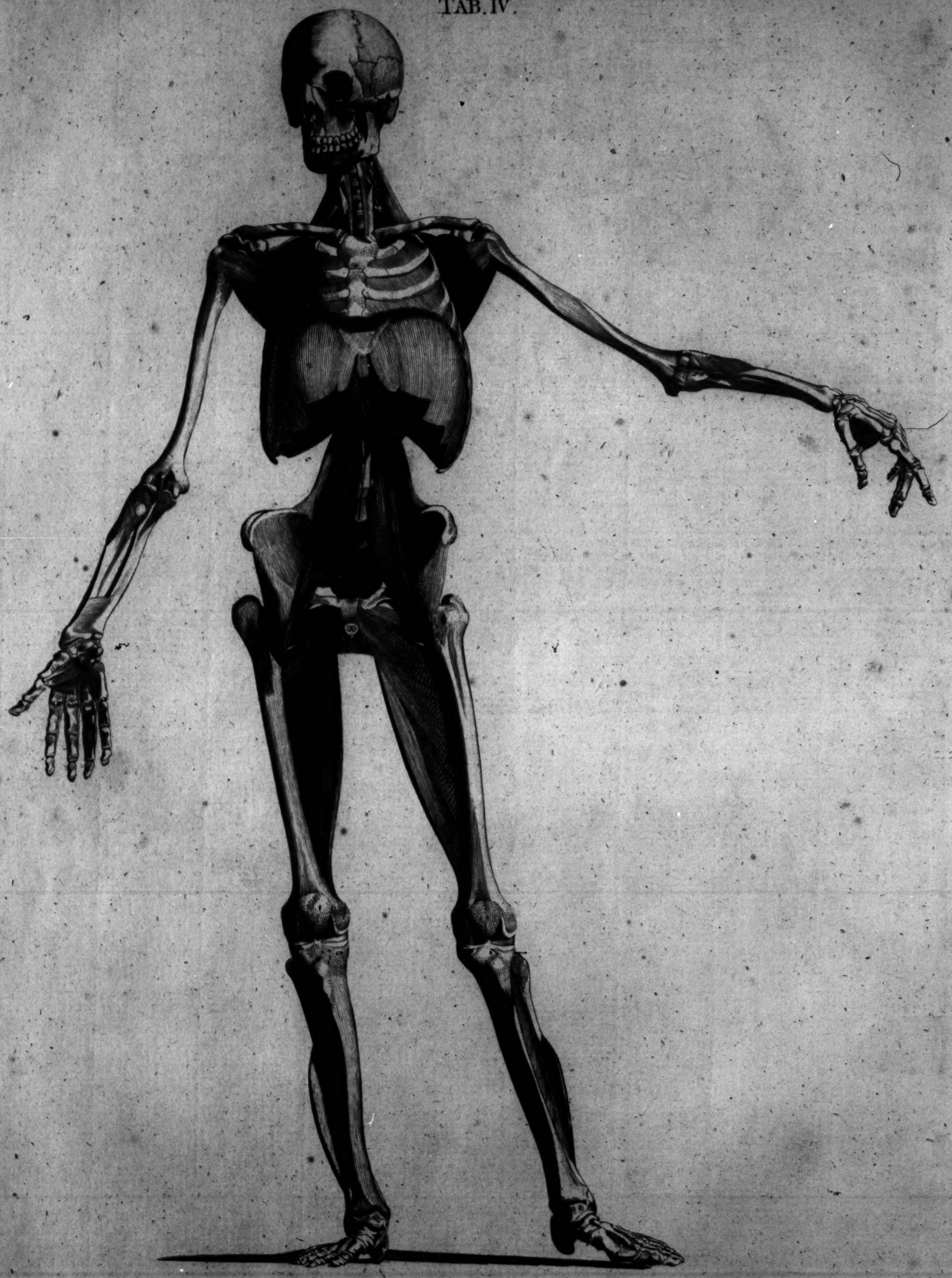
TAB. IV.



A.B. del. S. A.S.S. PRINT. SOVT. WERK. SCULPTOR fecit.

tebra of the loins, and alſo from that of the fifth, firſt of all tendinous *r*; (but differently in different ſubjects) and then the fleſhy portion *O* joins itſelf to the ſecond fleſhy part *S*, uniting with it behind a, and is inſerted into the cartilage of the twelfth rib b. c c the margin cut off which was continued to the tranſverſalis of the abdomen betwixt the two laſt ribs. d the middle tendon in which the tendinous fibres croſs each other. e f the fleſhy parts right and left. g the extremity of the middle fleſhy part that belongs to the enſiform cartilage from whence it is cut off at h. i i the extremities which unite to the peritonaeum. k k k k the extremities cut off from the inner ſide of the ſeventh rib. l l l l thoſe from the eighth rib. m m thoſe from the ninth. n n thoſe from the tenth. o o thoſe inſerted into the eleventh rib.

p q q. p q q The ſquare muſcles of the loins. q q the origin from the ſpine of the os ilium beginning outwardly tendinous.

r s The ſmall pſoas. s the tendon. The left is not exhibited.

t u v w x. t u v w x The great pſoae or lumbal muſcles. u the third head and its origin from the lower part of the body of the fourth vertebra of the loins, and from the ligament interpoſed betwixt that and the body of the third vertebra. v the fourth head, and its origin from the lower part of the body of the third vertebra of the loins and the ligament betwixt that and the ſecond. w the fifth head and its origin from the lower part of the body of the ſecond vertebra of the loins and the ligament betwixt that and the body of the firſt. x the tendon which joins to the fleſhy part of the iliacus internus.

y z z z. y z z z The internal iliacs. z z z the origin from the edge of the os ilium.

a b. a b The external obturators. b The origin from the os pubis.

c d d e The penis cut off. d d the larger cavernous bodies. e the leſs cavernous body with the urethra.

f f The erectors of the penis.

g g The accelerators.

h The external ſphincter of the anus.

i i The tranſverſe muſcles of the perinaeum.

k l m n o p. k l m n o p The large adductors of the thighs. k the origin from the os pubis. l m n The portions which are in ſome meaſure diſtinguiſhed from each other chiefly by the courſe of their fibres, which all together make the upper part of this muſcle inſerted along the poſterior rough line of the thigh bone. o p the part which is more diſtinct going from thence to the lower extremity belonging to the inner condyle: p the tendon ariſing from the fleſhy part.

q r f f t u u w w x y. q r f f t u u w w x y The tibiales poſtici. r the beginning that ariſes from the tibia. f f the origin from the tibia. t the beginning of its origin from the fibula. u u the origin itſelf from the fibula. w w x y the tendon inſerted into the navicular bone x, and running along in a more ſlender portion to the great cuneiform bone y.

z C C D. z C C The ſhort peronei. C C the origin from the fibula. D the tendon.

H H The firſt interoſſei of the ſecond toes ariſing from the metatarſal bones of thoſe toes.

L L The heads of the ſecond interoſſei of the ſecond toes which ariſe from the metatarſal bones of the third toes.

X X The heads of the ſecond interoſſei of the third toes ariſing from the metatarſal bones of the fourth toes.

P P The heads of the ſecond interoſſei of the fourth toes which ariſe from the metatarſal bones of the fifth.

S The adductor of the great toe.

In the Shoulders, Arms, and Hands.

W r O a. W r O a The ſubſcapulares. r the tendinous ends inſerted into the leſs unequal protuberance of the upper head of the humerus O a: the fleſhy part inſerted into the humerus below the ſaid tubercle.

b c d d e e f. b c e f The ſhort ſupinators. c the tendon by which it begins. d d its inſertion round the tubercle of the radius and into the radius itſelf below the ſaid tubercle e e. The poſterior part f appears betwixt the ulna and radius.

g. g h i k k The ſquare pronators. h the tendinous ſurface. i the origin from the ulna. k k the inſertion into the radius.

l m n o p q. l r The ſhort flexors of the thumbs. m the origin from the leſs multangular bone, from the uneiform bone n, and from the cuneiform bone o. p the other tail inſerted by a tendinous end into the ſeſamoide bone that is fartheſt from the index. q the other inſerted alſo by a tendinous end into the ſeſamoide bone that is neareſt the index, and into the next part of the firſt bone of the thumb. r the aponeuroſis which the ſhort flexor ſends out, and which joins with the aponeuroſis inveſting the capſule that joins the thumb with its metacarpal bone, and together therewith adheres to the common tendinous extremity of the extenſors of the thumb, the extremity of which is here cut off.

s t u. s u The adductors of the thumbs. t the origin from the metacarpal bone of the middle finger. u the tendinous end inſerted into the firſt bone of the thumb.

v w The outer interoſſeus muſcle of the index which is inſerted by a tendinous end w, into the firſt bone of the ſaid index.

x The poſterior or inner interoſſeus of the index. y its tendon, which being increaſed by a portion received from the tendon of the extenſors of the index, runs to the third bone of the ſaid index.

z The outer interoſſeus muſcle of the middle finger.

a The tendon of the ſecond lumbrical muſcle cut off.

b The tendon common to the ſecond lumbrical and outer interoſſeus muſcles of the middle finger, which tendon being increaſed by a portion received from the tendon of the common extenſor belonging to the middle finger, runs at laſt to the third bone of the ſaid middle finger.

c The inner interoſſeus muſcle of the middle finger. d its tendon, which being increaſed by a portion received from the tendon of the common extenſor belonging to the middle finger, runs at laſt to the third bone of the ſaid middle finger.

e f The outer interoſſeus muſcle of the ring finger. f its origin from the metacarpal bone of that finger.

g The tendon of the third lumbrical muſcle cut off.

h The tendon common to the third lumbrical and outer interoſſeus muſcle of the ring finger, which tendon being increaſed by a portion received from the tendon of the common extenſor belonging to the ring finger, runs to the third bone of the ſaid ring finger.

i k The inner interoſſeus muſcle of the ring finger. k its origin from the metacarpal bone of that finger. l its tendon, which being increaſed by a portion received from the tendon of the common extenſor belonging to the ring finger, runs to the third bone of that finger.

m n The interoſſeus muſcle of the little finger. n its origin from the metacarpal bone of that finger.

o The tendon of the fourth lumbrical muſcle cut off.

p The tendon common to the fourth lumbrical and interoſſeus muſcle of the little finger, which tendon being increaſed by a portion received from the tendon of the extenſors of the little finger, then runs to the third bone of the ſaid finger.

THE

Fifth Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

THE Figure of this table is the back part of that contained in the firſt muſcular table; and it repreſents the whole ſyſtem of the outer muſcles together, after the common integuments and tendinous coverings are removed: It alſo repreſents many of the ligaments belonging to the muſcles, with the ears, part of the ſcrotum, and naked parts of the Skeleton.

In the Head, Neck, Back, and Thighs.

a b c. a b c d d. e The epicranius or occipito-frontal muſcles. a b the occipitalis. a its tendinous beginning. b its fleſhy part. c d d the tendinous expanſion betwixt the occipitalis and frontalis. d d ſhews the temporal muſcle through the ſaid expanſion protuberant. e the membranous part by which the occipitales and their aponeuroſes are joined together, ariſing above the origin of the cucullares from the occipital bone.

f g The elevator of the outer ear. f its tendinous beginning which goes off from the epicranius. g the fleſhy part.

h The frontal muſcle.

i The orbicular muſcle of the eye-lids.

k The anterior muſcle of the outer ear.

l The leſs muſcle of the helix.

m n o The three muſcles drawing back the outer ear.

p q The maſſeter. p the back part of its inward portion, which is not covered by the outer portion. q the outward portion.

r The greater zygomatic muſcle.

ſ the internal pterygoide muſcle.

s The mylohyoideus muſcle.

t The latiſſimus colli or broadeſt muſcle of the neck.

u w x The ſternomaſtoideus with the cleidomaſtoideus conjoined together into one. w the tendinous end inſerted into the occipital bone at x.

y y The biventral muſcle of the neck inſerted into the occipital bone.

z z The ſplenii muſcles of the head.

A the elevator muſcle of the ſcapula or ſhoulder-blade.

B C D E F G H H. B C D E F G H H The cucullares. B the fleſhy part. C D E F the tendinous beginning. C the part ariſing from the occipital bone and adhering outwardly with its fellow muſcle along the tract D E F, which ariſes internally from all the ſpines of the back, the two lowermoſt of the neck, and the cervical ligament. E the tendinous expanſion of its beginning which is broader towards the bottom of the neck and upper part of the back. F another part of the ſame in the lower angle. G the end of the tendinous part which is inſerted into the ſpine of the ſcapula not far from its baſis. H H the tendinous part of the extremity inſerted into the ſpine of the ſcapula and its upper proceſs.

I K. I K The infraſpinatus on each ſide. K its origin from the baſis of the ſcapula.

L L The larger rhomboidal muſcles inſerted into the baſis of each ſcapula.

M M The ſacrolumbales muſcles.

N N the leſs teretes.

O O The larger teretes.

P Q R R S T V. P Q R R S T V The latiſſimi dorſi or broadeſt muſcles of the back. P the fleſhy part. Q The broad tendon by which it ariſes. R R its origin from the ſpines of the vertebræ of the loins and os ſacrum. S its origin from the oblique proceſſes that are at the ſides of the opening of the os ſacrum. T its adheſion with the gluteus magnus. V its origin from the ſpine of the ilium.

W X. W X The fleſhy parts of the external oblique muſcles of the abdomen, X X their inſertions into the ſpines of the oſſa ilia.

Y Z. Y Z *a* The middle glutei. Z the origin from the os iljum. *a* the tendon.

b b The extenſors of the tendinous coverings of the thighs.

c d d. c d d The largeſt glutei. *d d* in this part it ariſes from the ſpine of the ilium and os ſacrum, and coheres with the latiſſimus dorſi.

e The elevator of the anus. A ſmall part of the right elevator may be alſo ſeen on the right ſide.

Betwixt *f* and *g* is the tranſverſe muſcle of the perinæum.

g The external ſphincter of the anus.

h h The large adductors of the thighs.

i k. i k The graciles. *k* the tendon.

l l The ſartorii, or Taylor's muſcles.

m m The internal vaſt muſcles.

n n o p. n n o p The ſemimembranoſi. *o* the origin of the tendon from the fleſhy part. *p* the tendon.

q r. q r The ſeminervoſi or ſemitendinoſi. *r* the tendon.

ſ t t u w x. ſ t u u w y The bicipital muſcles of the legs. *ſ* the longer head. *t t* the ſhorter head. *u w x* the tendon. *u* the firſt portion ariſing from the ſurface of the fleſhy part of the longer head, and afterwards increaſed by the joining of the ſhorter head *x*, *w* the extremity inſerted into the upper head of the fibula.

y z. y z The external vaſti. *y* the tendinous ſurface.

G c. G c The plantares.

In the Legs and Feet.

D D The poplitei or muſcles of the hams.

H l, &c. *H l*, &c. The long peronei.

L X X P S S W. L X X P S S W The gemelli or gaſtrocnemii muſcles. *L X X* the outer head. *X X* the tendinous ſurface. *P S S* the inner head, *S S* the tendinous ſurface. *W* the tendon which forms part of the tendo Achillis.

Y O. Y O The tendons called Achillis inſerted into the heel bones *O O*.

a a b, a a b The ſolei. b the tendinous ſurface.

c c The tendons of the plantal muſcles.

d d The tendons of the tibiales poſtici.

Betwixt the tendons d and *y* in the left foot; and d and the tendon of the right plantaris, appear the tendons of the long flexors of the toes.

e e The ligaments which confine the tendons near the internal ancles under which they paſs along.

f f The long flexors of the great toes.

g h i i k. g h i k The ſhort peronei. h the origin of the tendon from the fleſhy part. i i the tendon. k its inſertion into the fifth metatarſal bone.

l m m m. l m m m The long peronei. m m m the tendon.

n n The ligaments by which the tendons of the long and ſhort peronei are retained at the outer ancles.

o o The ligaments proper to the ſhort peronei.

p p The ligaments proper to the long peronei.

q q The ligaments by which the tendons are confined at the bottom of the leg and upon the back of the foot.

r r The tendons of the long extenſors of the toes.

s s The tendons of the third peronei inſerted into the metatarſal bones of the little toes.

t t The ſhort extenſors of the toes.

u w x y z. u w x y z The abductors of the little toes, in the part u covered with a tendinous expanſion. w its origin from the calcanium. x the aponeuroſis that covers the part which is inſerted into the metatarſal bone of the little toe. y the tendon of the abductor inſerted into the firſt bone of the little toe. z the aponeuroſis which joins the tendon of the long extenſor belonging to the little toe.

a b. a The ſhort flexors of the little toes. *a* the part inſerted into the metatarſal bone of the little toe. *b* the part inſerted by a tendinous end into the firſt bone of the little toe.

c c The tendon of the long flexor of the great toe, paſſing along betwixt the ſeſamodial bones.

d The abductor of the great toe.

e The ſhort flexor of the toes.

In the Arms.

f g g b i k l m n. f g g b i k l m The deltoide muſcles. *f g g* the firſt order of the portions of which it is compoſed, *g g* the ſecond and poſterior order, ariſing from the ſpine and upper proceſs of the ſcapula. *b i* the poſterior portion of the ſecond order, ariſing from the upper proceſs *i*. *k l* the fourth portion of the ſecond order, ariſing with the flexor of the cubit from the upper proceſs *l*. *m n* the middle portion of the ſecond order, ariſing from the upper proceſs *n*.

o p q r ſ t u w x. o p q r ſ t u w x The tricipital extenſors of the arms. *o* the brevis. *p* the longus. *q* the brachialis externus. *r* the common tendon of theſe three heads. *ſ* the tendinous part that is formed by the longus and joins the common tendon. *t* the tendinous part in the right arm, formed by the external brachialis, and joining the common tendon: in the left arm *t* is placed at the origin of this tendon from the fleſhy part. *u* the tendinous part ariſing from the ſurface of the external brachialis, and belonging to the greater condyle of the humerus. *w* the common tendon inſerted into the elbow. *x* the thinner horn of the ſaid tendon, inſerted into the anterior edge of the elbow, and adjacent ſpine of the ulna.

y y The internal brachiales.

z z The long ſupinators.

In the Fore-arms and Right Hand.

A B C D D D D. A B C The longer external radiales. B the origin from the leſs condyle of the humerus. C its conjunction and common origin with the common extenſor of the fingers and outer ulnaris. D D D D the tendon inſerted into the metacarpal bone of the index.

E E The external brachiales ariſing from the roots of the leſs condyles.

F G. F. The anconei. G the tendon ariſing from the leſs condyle of the humerus.

H. H I I I. The ſhorter external radiales. I I I the tendon.

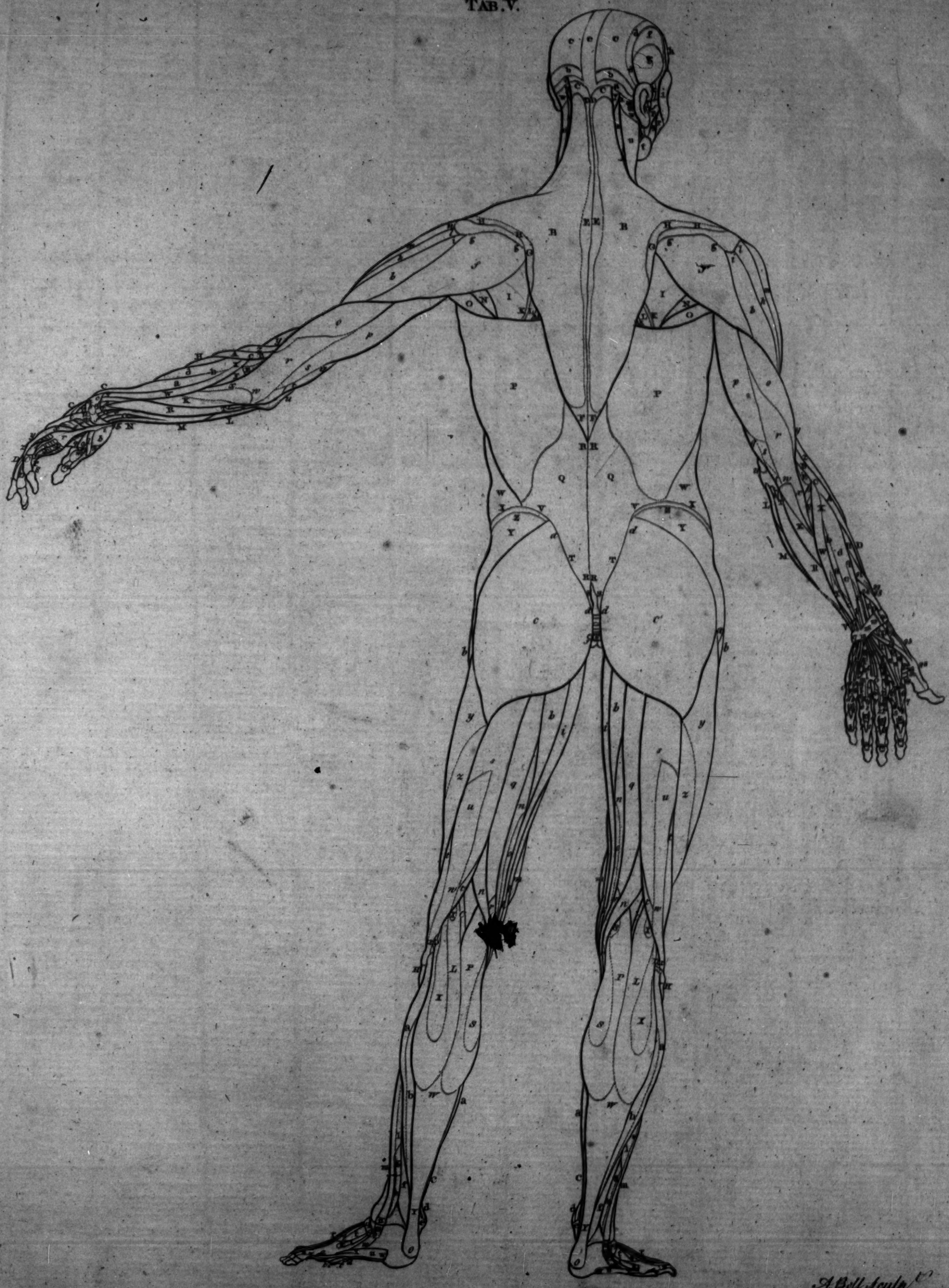
K. K The profound flexors, ariſing from each ulna.

L L The long palmares.

M. M N O P Q The ſublime flexors. N the portion belonging to the middle finger. O that to the index. P that to the ring finger. Q that to the little finger.

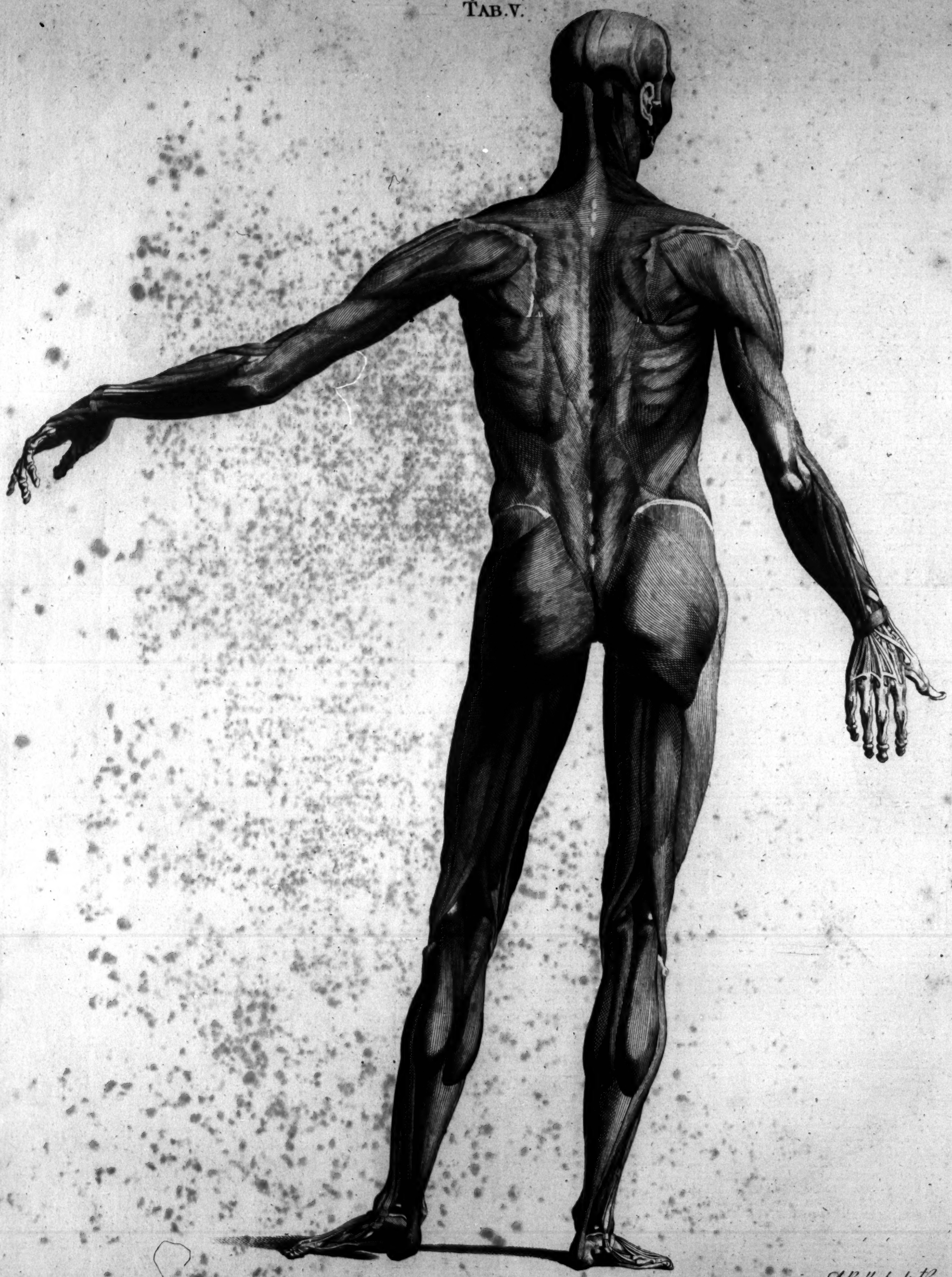
R S T V. R S T V The internal ulnares. S T their originations, S ariſing from the greater condyle of the humerus and cohering with the common

TAB. V.



A. Bell, Sculp.

TAB. V.



A. Bell Sculp.t

tendinous head of the muſcles ariſing from that condyle: the other origin T is from the elbow. V the tendon inſerted into the piſiform bone of the wriſt.

W X Y Y. W X Y Z. The external ulnares. X its beginning conjoined with the beginning of the common extenſor of the fingers. Y Z the tendon belonging to the fourth metacarpal bone of the hand Z. Betwixt the tendon Z and the tendon c on the back of the right hand is a ſmall tendon from this external ulnaris to the little finger.

a b c c. a b c e The extenſors proper to the little fingers. b the origin conjoined with the origin of the common extenſors of the fingers. c e the tendon which runs in a ſmall degree ſplit, over the back of the hand.

d. d e f f g h i k l m n o p p q r r s. The common extenſors of the fingers. e f f g h i k l m n o the portion belonging to the ring finger. f f the tendon which runs to the ring finger, having fiſſures as it paſſes along over the back of the hand. g a branch of this tendon which afterwards ſplits into two, one of which joins itſelf to the tendon c of the little finger, but is not always found; the other i divides again into two, of which k likewiſe joins the tendon c of the little finger, while the other (betwixt k and i below) goes to the trunk f of the little finger: l is a portion going off from the tendon f to the tendon c of the little finger: m the tendinous portion by which the trunk of the tendon f running to the ring finger joins the tendon of the little finger at the beginning of the fingers; which portion is compoſed of the two k and l, conjoined into one, below this, where the aponeuroſis goes off from the tendon f. n the branch joining itſelf to the tendon p of the middle finger, not always found. o the tendinous portion by which the trunk of the tendon f running to the ring finger joins to the tendon p of the middle finger near its root or bend: and this portion is made up from the tendon n meeting with the aponeuroſis which goes off from the trunk of the tendon f of the ring finger, near its root or joint. p p the tendon to the middle finger, in which is a fiſſure according to its courſe over the back of the hand. q r r the portion belonging to the index, r r the tendon. s the aponeuroſis which, ariſing from the tendon p of the middle finger, goes to the tendon r of the index, and conjoins thoſe tendons to each other at the roots of the fingers.

t The tendon of the indicator.

u The common tendon extending the index, formed of the tendon t of the indicator, and the tendon r of the common extenſor to the index, joined together into one.

v w x y z z z z The tendons of the extenſors of the fingers conjoined with the tendons and aponeuroſes of the interoſſei and lumbricales as they paſs along the backs of the fingers, &c. v that of the index formed of the tendon t of the indicator conjoined with the tendon r of the common extenſor. w that of the middle finger, x that of the ring finger, both which are from the common extenſor; y that of the little finger, which is formed of the tendon c, of the proper extenſor of the little finger, conjoined with the portions h and k l m from the common extenſor, joining with a portion from the extenſor carpi ulnaris externus. z z z z the extremities of theſe tendons inſerted into the bones of the ſecond phalanx.

a The aponeuroſis, from the capſule of the joint of this finger, with its metacarpal bone, and belonging to the tendon of the extenſor y.

b c The abductor of the little finger. c the tendon.

d e The common tendon of the abductor and ſhort flexor of the little finger, conjoined at *d* with the tendon y, and being increaſed by a portion received from thence, it runs to the third bone of that finger.

f The aponeuroſis which joins the tendon y, ariſing in its upper part from the capſule of the joint of this finger with the metacarpus, and below ſpringing from the tendon *g* of the interoſſeus of the little finger, with which tendon is conjoined the tendon of the fourth lumbricalis.

g The tendon of the interoſſeus of the little finger, to which is joined the tendon of the fourth lumbricalis.

b i The common tendon of the interoſſeus of the little finger and fourth lumbricalis, conjoined at *b* with the tendon y, and being increaſed by a portion received from thence runs to the third bone *i*.

k The common end in which the tendons *e g* unite and go to the third bone.

l The aponeuroſis which goes to the tendon x, in its upper part coming from the capſule of the joint of this finger with the metacarpus: and below ſpringing from the tendon *n* of the inner interoſſeus of the ring finger.

m m n o p The inner interoſſeus of the ring finger. *n* the tendon which afterwards joins at *o* with the tendon x, and being increaſed by a portion received from thence, runs to the third bone *p*.

q The aponeuroſis which joins the tendon x, ariſing in its upper part from the capſule of the joint of this finger with the metacarpus: in its lower part ſpringing from the tendon *s* of the outer interoſſeus of the ring finger, with which tendon is conjoined the tendon of the third lumbricalis.

r The tendon of the outer interoſſeus of the ring finger, to which the tendon of the third lumbricalis joins itſelf.

s t The tendon common to the outer interoſſeus of the ring finger and third lumbricalis, conjoined at *s* with the tendon x, and being increaſed by a portion received from thence, runs to the third bone *t*.

u The common end in which the tendons *p t* unite, and go to the third bone.

w The aponeuroſis that goes to the tendon w, coming in its upper part from the capſule of the joint of this finger with its metacarpus: below ſpringing from the tendon y of the inner interoſſeus of this middle finger.

x y z C The inner interoſſeus of the middle finger. *y* the tendon which afterwards joins at *z* with the tendon w, and being increaſed by a portion received from thence, runs to the third bone *C*.

D The aponeuroſis that joins the tendon w, coming above from the capſule of the joint of this finger with its metacarpus: in its lower part produced by the tendon *X* of the outer interoſſeus of this middle finger, with which tendon is conjoined the tendon of the ſecond lumbricalis.

H H H L X The outer interoſſeus of the middle finger. *H H H L* the heads ariſing from the metacarpal bone of the index *H H H* and middle finger *L*, *X* the tendon with which is conjoined the tendon of the ſecond lumbricalis.

P S The tendon common to the outer interoſſeus of the middle finger with the ſecond lumbricalis, conjoined at *P* with the tendon w, and being increaſed by a portion received from thence, runs to the third bone *S*.

W The common end in which the tendons *C S* unite and go to the third bone.

Y The aponeuroſis that joins the tendon v, in its upper part coming from the capſule of this joint with the metacarpus: in its lower part produced from the tendon 2 of the inner interoſſeus muſcle of this finger, the index.

1 2 3 4 The inner interoſſeous muſcle of the index. 4 the tendon that afterwards joins itſelf to the tendon v, and being increaſed by a portion received from thence it runs to the third bone 4.

5 6 The aponeuroſis that joins the tendon y, being in its upper part a production from the tendon of the abductor of the index, and in its lower part 6, from the firſt lumbricalis.

7 The tendon of the firſt lumbricalis, which afterwards conjoins itſelf with the tendon y, and being increaſed by a portion received from thence, runs to the third bone 9.

10 The common end in which the tendons 4 and 9 unite themſelves, belonging to the third bone.

11 The outer interoſſeous muſcle of the index.

12 The abductor of the index.

13 The tendon of the greater extenſor of the thumb.

14 15 The ligament that confines the tendon of the ulnaris externus, ariſing from the radius betwixt the ſaid ulnaris and extenſor of the little finger, and terminating at the tendon of the ulnaris internus; in the part 15 it is conjoined with the ligament 16.

16 17 18 19 The outer annular ligament, which ariſes from the piſiform bone 17, from the cuneiform bone 18, and from the eminence of the radius 19, which terminates the fore part of the groove that conducts or gives paſſage to the tendons of the muſculus externi.

20 The ligament that confines the tendons of the long abductor and leſs extenſor of the thumb, in one part ariſing from the eminence of the radius, from which alſo ariſes the ligament 16.

21 22 23 24 The long abductor of the thumb. 22 the tendon of its upper part. 23 23 the tendon of its lower part.

24 25 The leſs extenſor of the thumb. 25 the tendon.

26 The common end in which are conjoined the tendons (23 and 25) of the greater and leſs extenſors of the thumb, and belonging to the third bone.

27 28 The aponeuroſis which joins itſelf to the common end (26) of the tendons of the extenſors of the thumb, part of which aponeuroſis (27) inveſts the capſule of the joint of the thumb with its metacarpal bone, and adheres to the ligament 20, while the part (28) ariſes from the inner tail of the ſhort flexor of the thumb.

Betwixt 27 and 29 is the inner tail of the ſhort flexor of the thumb.

29 30 The adductor of the thumb. 30 the tendinous end inſerted into the firſt bone of the thumb.

In the lower part of the Left Elbow, and Left Hand.

a b The outer annular ligament, inſerted into the piſiform bone *f*, and continued to the ligament *c d*.

c d the ligament that confines the tendon of the ulnaris externus, ending by the tendon of the ulnarus internus at *d*.

e The ſquare pronator muſcle.

f The ligament, which with the groove of the wriſt forms a channel wherein are confined the tendons paſſing from the elbow to the hand, namely, of the ſublime and profound flexors, and of the long flexor of the thumb.

g Part of the tendon given from the long to the ſhort abductor of the thumb.

h i k The ſhort abductor of the thumb. At *i* it receives a part from the aponeuroſis of the long palmaris. *k* the tendinous end, with the aponeuroſis which it gives to the tendon of the extenſors of the thumb.

l Part of the ſhort flexor of the thumb, which may be eſteemed a ſecond ſhort abductor of it: *l* is inſerted with its tendinous end into the firſt bone of the thumb.

m Two ligaments which confine the tendon of the long flexor of the thumb; the one ſeated above, at the joint of the thumb with its metacarpal bone; the other, juſt below the former, is affixed to the edges of the firſt bone, beginning ſimple, but afterwards ſplit into two horns.

n n The tendon of the long flexor of the thumb, inſerted into the laſt bone of the thumb.

o The inner tail of the ſhort flexor of the thumb, inſerted into the firſt phalanx and inner ſeſamoide bone.

p The firſt lumbricalis.

q The adductor of the thumb.

r The aponeuroſis or tendinous expanſion of the long palmaris muſcle.

s The ſquare or ſhort palmaris muſcle.

t u w The abductor of the little finger, *t w* its origin from the piſiform bone *u*, and from the inner ligament of the wriſt *w*.

x The ſmall flexor of the little finger.

y The tendon common to the ſmall flexor and abductor of the little finger, conjoined with the tendon of the extenſor of that finger.

z The end of the tendon of the extenſor of the little finger belonging to the third bone.

C The tendon running to the third bone, formed of the tendon *Y*, and joined by a portion of the tendon of the extenſor of the little finger.

D D The tendons correſponding to thoſe of *p t u* in the right hand.

H The ligament by which are confined the tendons of the ſublimis and profundus, as they paſs along the bone of the firſt phalanx or order.

L Three ligaments by which are retained the tendons of the ſublimis and profundus at the joint of the fingers with the metacarpus. We have fixed the latter only on the middle finger, but the ſame ligaments are alſo in the fore and ring fingers.

X The tendons of the ſublimis and profundus.

P The tendon of the profundus with one horn of the ſublimis.

S The tendon of the profundus.

The ſame parts (*H L X P S*) are alſo pointed out in the other fingers.

THE

Sixth Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

IN this Figure are expreſſed the ſecond order of the muſcles in the back part of the body, together with ſome of the ligaments and naked parts of the Skeleton, with part of the ſcrotum. This correſponds to the figure of the ſecond table, of which this is the back view; but there is this difference, that in the preſent figure the Sternomaſtoidei and Cleidomaſtoidei muſcles are taken away, the back parts of thoſe muſcles having been ſufficiently repreſented in the fifth table.

The muſcles exhibited in the laſt preceding table, and here taken away, are from the head, the epicranius, the elevator of the outer ear, the anterior and three retractive muſcles of the outer ear, the ear itſelf, the orbicularis of the eye-lids, the greater zygomatic, and the latiſſimus colli. From the neck, back, and loins, are taken away the ſternocleinomaſtoidei, the cucullares, latiſſimi dorſi, and external oblique muſcles of the abdomen, and alſo from the left ſide of the back is removed the greater and leſs rhomboides. From the hips and nates are taken the large glutei. From the thighs the ſartorii. From the legs the gaſtrocnemii. From the feet the ligaments by which the tendons are confined near the inner ancles, the ligaments by which the tendons of the long and ſhort peronei are retained at the outer ancles; the ligaments proper to the ſhort peronei, the ligaments peculiar to the long peronei, the ligaments by which the tendons are confined at the bottom of the leg, and upon the backs of the feet, the abductors of the little toes; the aponeuroſes joining the tendons belonging to the little toes to the tendons of the long extenſors of the other toes. From the arms are taken the deltoidei. From the fore-arms and beginning of the hands are taken the long ſupinators, the common extenſors of the fingers, the extenſors proper to the little fingers, the external ulnares, the long palmares, the outer circular ligaments, the ligaments which confine the tendons of the outer ulnares. Alſo from the extreme part of the right fore arm is taken the ligament by which are confined the tendons of the long abductor and ſhort extenſor of the thumb. From the left hand likewiſe is taken the ſhort palmaris, the ſhort abductor of the thumb, the ligaments by which is confined the tendon of the long flexor of the thumb, the ligaments by which are confined the tendons of the ſublimis and profundus at the joints of the fingers, with their metacarpal bones, and thoſe by which the tendons are confined at the firſt bones of the fingers.

In the Head, Neck, and Back.

A B B B C D. The temporal muſcle. B B B C the firſt beginning of its origin from the convexity of the parietal bone B B B, and from the mammillary proceſs C. B the tendon.

E F G H. The maſſeter. E F the outer portion, F the extremity inſerted into the lower jaw. G H the back part of the inner portion, which is not covered by the outer portion. H its origin from the zygomatic proceſs of the temporal bone and from the os jugale.

I The internal pterygoideus muſcle, inſerted into the lower jaw.

K The maxillohyoideus ariſing from the lower jaw.

L The firſt belly of the digaſtric muſcle of the lower jaw.

M N. M N The biventers or digaſtrics of the neck. N the tendinous end inſerted into the occipital bone. Soon after O beneath appear the two interſpinales colli betwixt the ſpine of the fifth and ſixth vertebra of the neck.

P Q R S. P Q R S The ſplenei muſcles of the head. Q the beginning or riſing from the ligament of the neck. R S the tendinous end inſerted into the occipital bone R, and into the mammillary bone and proceſs S.

T U V. T U V The ſplenei muſcles of the neck. U V the beginnings of which one U ariſes from the ſpine of the tenth vertebra of the back, and the other V from the ninth.

W W The trachelomaſtoidei muſcles.

X X Portions of the latiſſimi dorſi muſcles running to the neck.

Y Y The tranſverſe muſcles of the neck.

Z a. Z a The elevators of the ſhoulder blades, a ariſing from the ſcapula.

a b, a b c d e f g h i k l. The poſterior and upper ſerrati. a the tendinous part, b the fleſhy part, c d e f the origin from the ligament of the neck c, from the ſpine of the lower vertebra of the neck d, and the uppermoſt of the back e, and from the eleventh f g h i k l the four extremities, of which g belongs to the ſecond rib, h to the third, i to the fourth, and k l to the fifth, inſerted into that rib at k.

m n o. The leſs rhomboides. n the tendinous beginning ariſing from the ligaments of the neck. o the end inſerted into the ſcapula. The left rhomboides is removed.

p. p q r s t u. v w x x. The greater rhomboides. v p the tendinous beginning, q the fleſhy part. r s t u w the origin from the ſpines of the vertebræ, r that from the loweſt of the neck, s from the twelfth of the back, t from the eleventh, u from the tenth, w from the ninth v. w in this part it is incurvated according to the baſis of the ſcapulæ without inſerting itſel f. x x its inſertion. The left is removed.

y The biventer of the neck.

z The ſemiſpinalis muſcle of the back.

a b c d e f g h i. a b c d e f g h i The ſpinales of the back. *b* the portion that belongs to the ſpine of the eleventh vertebra of the back: *c* that to the tenth: *d* that to the ninth: *e* that to the eighth: *f* that to the ſeventh: *g* that to the ſixth: *h* that to the fifth. *i* the head by which it ariſes from the ſpine of the third vertebra.

k l. k l The longiſſimus dorſi muſcle. *l* the tendinous part.

m n o p q r ſ ſ t u. m n o p q r ſ ſ t u The ſacrolumbales. *m* the fleſhy part *n* the tendinous tail that belongs to the ninth rib: *o* that to the eighth: *p* that to the ſeventh: *q* that to the ſixth: *r* that to the fifth: *ſ* that to the fourth: *ſ* that to the third: *t* that to the ſecond: *u* that to the firſt.

w x y z C D D H L. z C D D H L The outer intercoſtals. *w* the fourth with the elevator of the fifth rib, *x* the fifth, *y* the ſixth, *z* the ſeventh, *C* the eighth, *D D* the ninth, *H* the tenth, *L* the eleventh.

X X. The eleventh internal intercoſtals.

In the ſide of the Thorax, and lower part of the Trunk.

P S W Y O A B. P S W Y O A B The great ſerrati muſcles. *S* the head that ariſes from the fifth rib: *W* that from the ſixth: *Y* that from the ſeventh: *O* that from the eighth: A that from the ninth: B that from the tenth rib.

C D E E F G G H I K L. C D E E F G G H I K L The poſterior and lower ſerrati. C the tendinous part. D F H K the fleſhy part. D the firſt head inſerted into the ninth rib E E. F the ſecond head inſerted into the tenth rib G G. H the third head inſerted into the eleventh rib I. K the fourth head inſerted into the twelfth rib L.

M N O O P Q R S T. M N O O P Q R S T The internal oblique muſcles of the abdomen. M the fleſhy part. N the tendinous part. O O the tendinous beginning from the ſpine of the ilium. P Q the extremity inſerted into the twelfth rib, into the bony part P and cartilage Q. R S the end inſerted into the eleventh rib, into its bony part R and its cartilage S. T the end that belongs to the tenth rib.

U V W X Y Z a b b b. U V W X Y Z a b b b The broad tendons by which the latiſſimi dorſi begin. V W its orgin from the ſpines of the two lower vertebræ of the back, and all thoſe of the loins and os ſacrum. X Y its origin from the two oblique proceſſes which are placed at the ſides of the opening of the canal of the os ſacrum in its lower part. Y Z the part in which it adhered with the gluteus magnus. a its origin from the ſpine of the ilium. b b b the broad tendon here cut off, where it no longer adheres with the tendon beneath, by which ariſe the lower ſerratus poſticus and internal obliquus of the abdomen.

c c The multifide muſcle of the ſpine.

d d The coccygei muſcles.

e e The elevators of the arms.

f The external ſphincter of the arms.

g g The ſecondary tranſverſe muſcles of the perinæum ariſing from the oſſa pubis.

h h The tranſverſe muſcles of the perinæum ariſing from the tubercles of the iſchia.

i k k k l. i k k k l The middle glutei in which are impreſſed the footſteps of the largeſt glutei (conſult Tab. V.) k k k the origin from the os ilium. l the tendon inſerted into the greater trochanter.

m The great ſpoas.

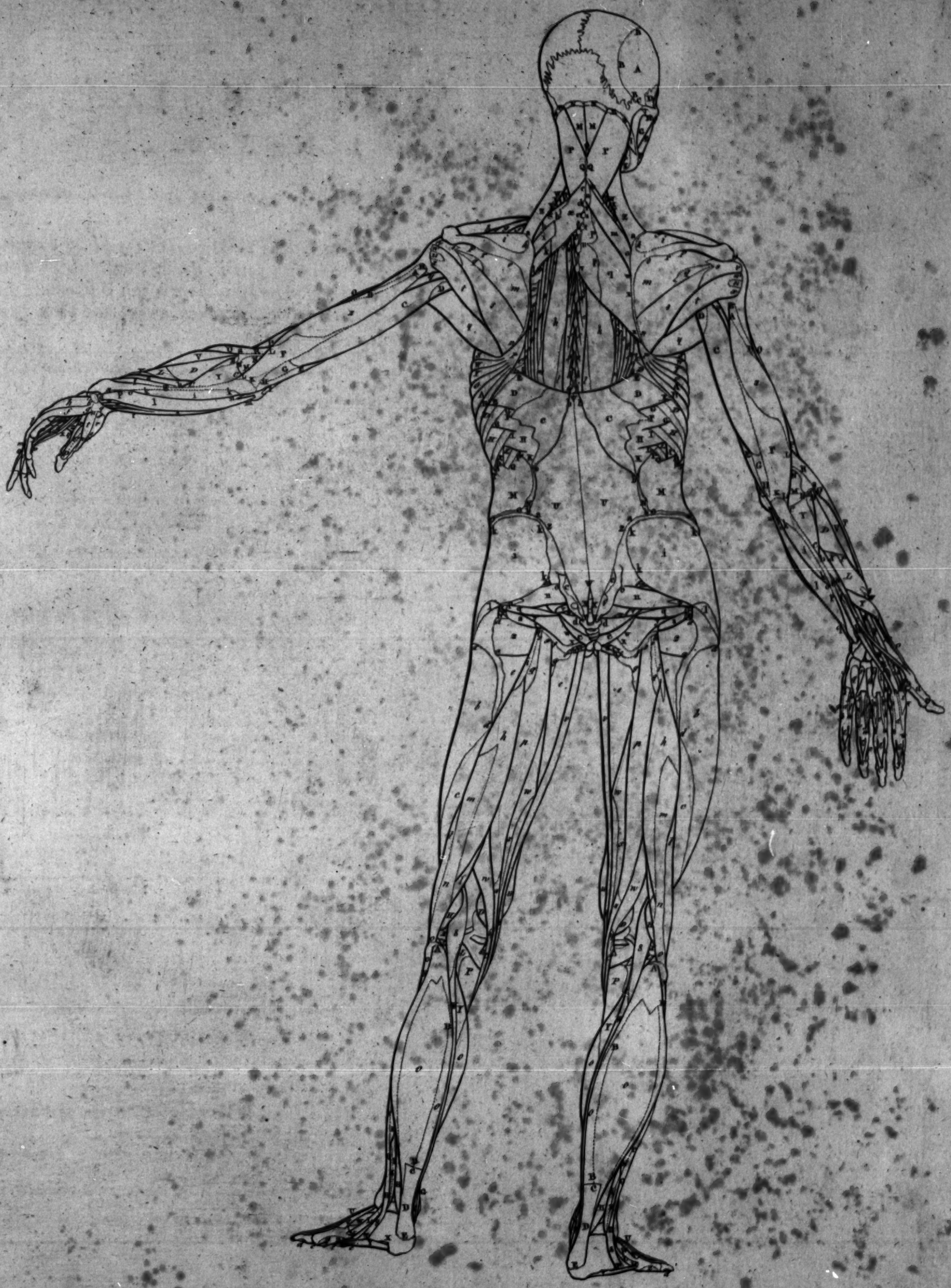
n o p. n o p The pyriform muſcles. o the origin from the os ilium, p the tendon.

q r. q r The upper of the gemini. r the tendinous extremity. s t u. s t u the lower of the gemini. t the origin from the tubercle of the iſchium. u the tendinous end.

v v. v v The external obturators.

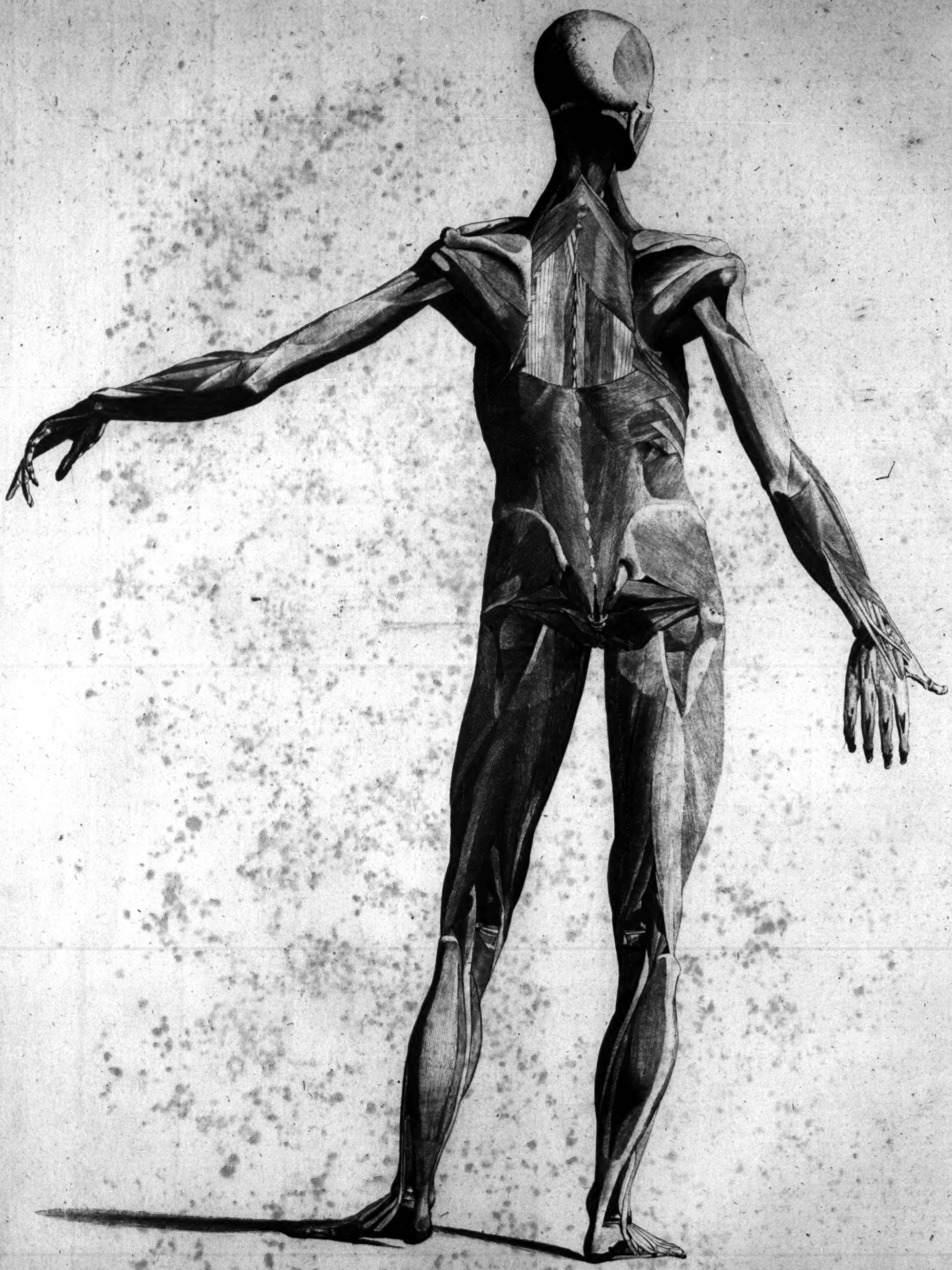
w x y. w x x y The internal obturators. w the portion ſeated in the pelvis, where the part x ariſes from the anterior face and margin of the great foramen of the os innominatum. y the part which goes along the back of the os ilium betwixt the gemini.

TAB. VI.



A Bell Sculp.

TAB. VI.



A. Bell S. A. S. S. PHONCT. SCOT. & WAL. SCULPTOR. Fecit.

In the Thighs, Legs, and Feet.

Z *a a.* Z *a a* The quadrati of the thighs. *a a* the end inſerted into the thigh bone.

b c d d. b c d d The external vaſti. *c* the tendinous part. *d d* its origin from the thigh bone.

e e f f g h h. e e f f g h h The large adductors of the thighs. *f f* the origin from the tubercle of the iſchium. *g* part of the tendinous beginning. *h h* part of the extremity inſerted into the thigh bone.

b i k l l m n o. b i k l l m n o The bicipital muſcles of the legs. *b i k* the longer head. *i k* the tendon by which it begins and ariſes from the back of the tubercle of the iſchium which joins the beginning of the ſemitendinoſus. *l l* the ſhorter head. *m n o* the common tendon in which terminate the two heads; *m* ariſing firſt from the fleſhy ſurface of the longer head, and then being increaſed by joining the ſhorter head *n*, at length terminates with a ſhort extremity *o* in the upper head of the fibula.

p q r ſ s p q r ſ s The ſemitendinoſi. *q* the tendinous part of its origin, ariſing from the back of the tubercle of the iſchium *r*, it then joins the tendinous beginning of the longer head of the biceps of the leg, from which beginning it departs. *ſ* the origin of the fleſhy part which is ſometimes tendinous ariſing from the back of the tubercle of the iſchium. *s* the tendon.

v t. v t The graciles. *t* the tendon.

u. u The internal vaſti muſcles.

w w x y z C. w w x y z C The ſemimembranoſi. *x* the origin of the tendon from the fleſhy part, *y* the tendon. *z* the more conſiderable part of the tendon inſerted into the oblique rough eminence which is below the back part of the root of the upper head of the tibia, where it ſuſtains the inner condyle of the thigh bone. *C* the thinner portion which the tendon ſends off to the inner edge of the tibia.

D D The inner heads of the gemelli or gaſtrocnemii of the legs. *H H* the outer heads cut off.

L L X P. L L X P The poplitei. *X* the tendon by which it ariſes. *P* the tendinous ſurface.

S W. S W. The plantares. *W* the tendon.

Y Y O O O A B B. *Y Y O O O* A B B The ſolei muſcles. *O O O* the tendinous ſurface by which the tendon of its back part begin. A the origin from the upper head of the fibula. B B a mark like a noteh where is a tendinous part within the fleſh, dividing the ſaid muſcular fleſh like a tendinous partition.

C C The tendons of the gemelli cut off.

D E. D E The tendons of Achilles inſerted into the heel bones E E.

F F The tendons of the long flexors of the toes.

G G The tendons of the tibiales poſtici.

H H The long flexors of the great toes.

I K L M. I K L M The ſhort peronei. K the origin of the tendon from the fleſhy part, L the tendon inſerted into the metatarſal bone M of the little finger.

N N O P Q R S T. N N O P Q R S T The long peronei. O the origin from the root of the upper head of the fibula. P the origin of the tendon from the fleſhy part. Q R S T the tendon. R S T the knots or bendings. R that where the tendon inflects itſelf at the outer ancle; S the ſecond which is at the eminence of the heel bone; T the third at the cubical bone.

U U The tendons of the long extenſors of the toes.

V V The tendons of the third peronei inſerted into the metatarſal bones of the little toes.

W W The ſhort extenſors of the toes.

Below at X is the maſs or head which joins the long flexor of the toes in the ſole of the foot.

Y Y The ſhort flexors of the toes. The four tendons of the left are viſible.

In the Feet.

Z. Z *a b c* The ſhort flexors of the little toes, ariſing from the metatarſal bones of thoſe toes. *a* the part connected to the metatarſal bone of the little toe. *b c* the part belonging to the firſt bone of that toe, *c* the tendinous end.

d d The tendons of the ſhort flexors of the toes, together with the tendons of the long flexors belonging to the little toes.

e e The tendon of the long flexor of the great toe, paſſing betwixt the ſeſamoide bone.

In the Shoulders and Arms.

f The great ſerratus muſcle.

g g The corachyoidei.

b The ſubclavian muſcle.

i k. i k l The ſupraſpinati. *k* the origin from the ſcapula. *l* the tendinous end inſerted into the larger unequal protuberance of the upper head of the humerus.

m n o p q r ſ s v. m n o p q r ſ s v The infraſpinati. *n o* the origin from the baſis of the ſcapula, *o p* the origin from the ſpine. *q* the tendon where it begins firſt to appear. *r ſ* the fleſhy portions joining to that tendon. *r* the upper portion from the ſpine; *ſ* the lower portion from the lower angle. *s* the tendinous end, inſerted into the larger unequal protuberance *v* of the upper head of the humerus.

t u w x. t u w x The leſs teretes. *u* the tendon inſerted into the os humeri. *w x* The fleſhy portions with the tendon inſerted partly above *w*, and in part below *x*. The inſertion is into the larger unequal protuberance of the upper head and lower part of the neck of the humerus.

y y. y y The larger teretes.

z A B B C D E F G H I K L L M N N. z A B B C D E F G H I K L L M N N The tricipital extending muſcles of the arms. z A B B the brevis, in the upper part of which is a ſinus impreſſed by the deltoides: (ſee Tab. V.) A the tendinous part, B B the origin from the humerus. C D the long extenſor in the upper part of which is a ſinus impreſſed by the deltoides (ſee Tab. V.) D the tendinous part, E the external brachialis. F the common tendon of theſe three heads. G the tendinous part formed by the long extenſor and joining the common tendon. H the tendinous part formed by the external brachialis which joins the common tendon. I the tendinous part which ariſing from the ſurface of the external brachialis, belongs to the great condyle of the humerus. K the common tendon inſerted into the elbow. L L the thinner horn of this tendon here cut off, which is inſerted into the fore part of the olecranum and ſpine of the ulna next adjacent. M N N part of the external brachialis, from the root of the leſſer condyle N N, and ariſing from the margin of the os humeri above it.

O O The bicipital muſcles of the arms.

P P The internal brachial muſcles.

Q R S T T U The longer external brachialis. R the origin from the leſſer condyle and from the margin of the humerus above it. S the part where it was conjoined with the common extenſor of the fingers and internal ulnaris. T T U the tendon inſerted into the metacarpal bone of the index.

V. V W W X The ſhorter external radiales. W W the tendon inſerted into the metarcarpal bone X of the index and little finger.

Y Z *C C* The anconei. Z the tendon ariſing from the leſſer condyle of the humerus. *C C* the extremity inſerted into the fore part of the elbow, and margin of the ulna below that part of the elbow.

D. D H The ſhort ſupinators. *H* the tendinous beginning ariſing from the leſs condyle of the humerus.

L. L X P S W W The long abductors of the thumbs. *X* part of its origin. *P* the part from the radius. *S* the tendon of its upper part. *W W* the tendon of its lower part.

Y. Y O The leſs extenſors of the thumbs. *O* the tendon.

a b. a b c The larger extenſors of the thumbs. b the origin from the ulna. c the tendon.

d e The common end in which unite the tendons of the greater e and leſs extenſor *O* of the thumb, inſerted into the third bone of the thumb.

f g. f g h The indicators. g the origin from the ulna. h the tendon.

i k k. i k k The profundi. k k the origin from the ulna.

l m n o p q. l m n o p q The internal ulnares, to the beginning ariſing from the greater condyle of the humerus, and cohering with the common tendinous head of the muſcles which ariſe from that condyle. n the beginning from the broad part of the elbow n o p; and departing from the tendinous faſcia or covering of the cubit n o, and ariſing alſo from the ulna p, the tendon *q* is inſerted into the piſiform bone of the wriſt.

r The ſquare pronator muſcle.

In the Left Hand.

s. s t u v w x y z a The ſublime flexors. t the portion belonging to the middle finger; u that to the index, v that to the ring finger, w that to the little finger. x y z *a* the tendons. x that of the index. y that of the middle finger. z of the ring finger. *a* of the little finger.

b c d e. The lumbrical muſcles of the fingers. *b* that of the index, *c* that of the middle finger, *d* that of the ring finger, *e* that of the little finger.

f g The ſmall flexor of the little finger. *g* the origin from the interior ligament of the carpus.

h i k The abductor of the little finger. *i k* the origin, from the piſiform bone of the wriſt *i*, and from the inner ligament of the wriſt *k*.

l The tendon common to the ſmall flexor and abductor of the little finger, conjoined to the tendon of the extenſor of that finger.

m The end of the extenſor tendon of the little finger, belonging to the ſecond bone.

n The tendon running to the third bone, formed of the tendon *l* and joined by a portion of the extenſor tendon of the little finger.

o o The ſame tendons which in the right hand are marked *p x y. t x y.*

p. p The tendons of the profundi.

q The ligament which with the cavity in the wriſt forms a canal, wherein are confined the tendons of the ſublimis, profundus, and long flexor of the thumb, paſſing from the fore-arm to the hand.

r ſ s The oponent muſcle of the thumb. *r* its origin from the inner ligament of the wriſt. *s* its end inſerted into the metacarpal bone of the thumb.

t u w Part of the ſhort flexor of the thumb, which may reckoned as a ſecond ſhort abductor of the thumb. *u* its origin from the inner ligament of the carpus. *w* its tendinous end inſerted into the firſt bone of the thumb.

x y The poſterior tail of the ſhort flexor of the thumb, inſerted into the firſt internode *y*, and poſterior ſeſamoide bone of the thumb.

z The adductor muſcle of the thumb.

C D The tendon of the long flexor of the thumb, in a manner ſplit or divided. *D* its inſertion into the laſt bone of the thumb.

In the Right Hand.

a b c d The tendons of the extenſors of the fingers as they paſs over the joints, conjoined with the tendons and aponeuroſes of the interoſſei, lumbrical, &c. muſcles. They are cut off at the roots of the fingers, except in the index, in which that tendon only is cut off which it receives from the common extenſor. *e f g v* the ends of thoſe tendons inſerted into the ſecond order of bones.

f g The abductor of the little finger. *g* the tendon.

h The tendon common to the abductor and ſmall flexor of the little finger joined with the tendon *n*, and being increaſed by a portion received from thence, runs to the third bone *f* of the little finger.

k The aponeuroſis, from the capſule of the joint of this finger with its metacarpal bone, belonging to the tendon *a*.

l The tendon of the interoſſeus of the little finger, to which is conjoined the tendon of the fourth lumbricalis.

m The tendon common to the interoſſeus of the little finger and fourth lumbricalis, conjoined with the tendon *q*, and being increaſed by a portion received from thence, runs to the third bone *e*.

n The common tendinous end *l m*, belonging to the third bone.

p The aponeuroſis which joins the tendon *a*, coming in its upper part from the capſule of the joint of this finger with its metacarpus: and below it is produced by the tendon *l* of the interoſſeus of the little finger, with which tendon is conjoined the tendon of the fourth lumbricalis.

e f f The inner interoſſeus of the ring finger. e one head of it ariſing from the metacarpal bone of the little finger. f the other head from the bone of the ring finger. f the tendon which afterwards joins itſelf at s with the tendon b, and being increaſed by a portion received from thence, runs to the third bone g.

g The aponeuroſis which joins the tendon b, coming in its upper part from the capſule of the joint of this finger with its metacarpus; and below it is produced from the tendon of the inner interoſſeus b, of the ring finger f.

u The tendon of the outer interoſſeus muſcle of the ring finger, to which is conjoined the tendon of the third lumbricalis.

w The tendon common to the outer interoſſeus of the ring finger and third lumbricalis, conjoined with the tendon b, and being increaſed by a portion received from thence, runs to the third bone x.

y The common end of the tendons u x, belonging to the third bone.

z The aponeuroſis which joins the tendon b, coming in its upper part from the capſule of the joint of this finger with its metacarpus: below produced from the tendon w of the outer interoſſeus of the ring finger, with which tendon is conjoined the tendon of the third lumbricalis.

a b c The inner interoſſeus of the middle finger. a one head ariſing from the metacarpal bone of the ring finger: b the other head from that of the middle finger. c the tendon which afterwards joins at f with the tendon c, and being increaſed by a portion received from thence, it runs to the third bone g.

h The aponeuroſis that joins the tendon c, coming in its upper part from the capſule of the joint of this middle finger with the metacarpus: in its lower part produced from the tendon c of the inner interoſſeus of this middle finger.

i i k k l The outer interoſſeus of the middle finger. i i one head ariſing from the metacarpal bone of the middle finger: k k the other head from the bone of the index. l the tendon to which is joined the tendon of the ſecond lumbricalis.

m The tendon common to the outer interoſſeus of the middle finger and ſecond lumbricalis, conjoined with the tendon c, and being increaſed by a portion received from thence, it runs to the third bone n.

o The common end of the tendon, g n belonging to the third bone.

p The aponeuroſis which joins the tendon c, coming in its upper part from the capſule of the joint of this finger with the metacarpus: in its lower part produced by the tendon l of the outer interoſſeus of this middle finger, with which tendon is conjoined the tendon of the ſecond lumbricalis.

q r The inner interoſſeus of the index. r the tendon which afterwards joins at s with the tendon d, and being increaſed by a portion received from thence, it runs to the third bone t.

u The aponeuroſis that joins the tendon d, coming in its upper part from the capſule of the joint of this finger with the metacarpus: below it is produced from the tendon r of the inner interoſſeus of this fore finger.

v The tendon of the firſt lumbricalis, which afterwards joins at w with the tendon d, and being increaſed by a portion received from thence, it runs to the third bone x.

y The common end in which meet the tendons t x belonging to the third bone.

z 1 The aponeuroſis that joins the tendon d, produced in its upper part z from the abductor of the index 1 in its lower part from the firſt lumbricalis s.

2 The outer interoſſeous muſcle of the index.

3 The abductor of the index.

4 5 The aponeuroſis which joins the common end of the extenſor d of the thumb. Part of it 4 ſurrounds the capſule of the joint of this finger with its metacarpus, and adheres to the ſaid capſule: the part 5 comes from the inner tail of the ſhort flexor of the thumb.

6 The inner tail of the ſhort flexor of the thumb.

7 8 The adductor of the thumb: 8 its tendinous end inſerted into the firſt bone of the thumb.

THE Seventh Anatomical Table OF THE HUMAN MUSCLES EXPLAINED.

HERE follows the third order of the muſcles on the back part of the body, with ſome of the ligaments and naked parts of the Skeleton; for here we have removed moſt of the outer parts exhibited in the figure laſt preceding. This figure correſponds to that of the third table, and gives a back view thereof, with this difference, that, in the firſt place, the outer ſphincter of the anus is here taken away, as being ſufficiently repreſented before in the ſixth table; and, ſecondly, that in the right hand of this figure, contrary to that of the third table, are repreſented the tendon of the abductor of the little finger, and the tendon common to that abductor with the ſmall flexor; and this was done to avoid leſſening the tendinous communication ſtretched over the back of the little finger.

The muſcles here taken off are, from the head, the temporalis, the maſſeter, the digaſtric of the lower jaw. From the neck, back, and loins, the ſplenii of the head and neck, the elevators of the ſcapulæ, the greater and leſs rhomboidals, the poſterior and upper ſerrati, the great ſerrati, the lower poſterior ſerrati, and the internal obliqui of the abdomen, together with the broad tendons by which the latiſſimi dorſi be join. From the parts about the nates and hips are taken the middle glutei, the pyriformes, the upper and lower gemelli, the quadrati of the thighs, coccygei, the elevators of the anus, the tranſverſales of the perinæum both primary and ſecondary, with the outer ſphincter of the anus, and the teſticles. From the thigh the ſemitendinoſi, the longer heads of the bicipitals of the legs, with the external and internal vaſti. From the legs are taken the plantares and the ſolei, with the tendons of Achilles. From the feet the tendons of the common extenſors of the toes and third peronei, the ſhort flexors of the intermediate and little toes. From the ſhoulder blades the coracohyoidei, ſubclavius, ſupraſpinati, infraſpinati, and leſſ teretes. From the arms are taken the bicipital flexors, with the long and ſhort extenſors of the elbow. From the fore-arms and hands, the anconei, the long abductors of the thumbs with their greater and leſs extenſors, the indicators, the outer ulnares and ſublimus. From the left hand the abductor and ſhort flexor of the little finger, part of the ſhort flexor of the thumb (which may be reckoned as a ſecond ſhort abductor of it) and the oppoſer of the thumb. From the right hand the abductor of the little finger, the head of the inner interoſſeus of the ring finger, ariſing from the metacarpal bone of the little finger, the head of the inner interoſſeus of the middle finger ariſing from the metacarpal bone of the ring finger. The head of the outer interoſſeus of the middle finger ariſing from the metacarpal bone of the index, the abductor of the index, the aponeuroſis which inveſts the capſule of the joint of the thumb with its metacarpal bone, faſtened to the ſaid capſule, and conjoining itſelf to the common end of the tendons of the extenſors of the thumb.

In the Head, Neck, and Trunk.

a The buccinator muſcle.

b The portion that joins the orbicularis of the mouth, ariſing from the lower jaw.

c The internal pterygoideus inſerted into the lower jaw.

d e Mylohyoideus. e e the origin from the lower jaw.

f g h i k l l m m n f g h i k l l m m n The biventers of the neck. f the firſt belly. g the tendon betwixt the venters. h the portion ariſing from the uppermoſt vertebra of the ſpine, and detached partly to the middle tendon i, and in part to the ſecond belly k. l l the ſecond belly, inſerted into the occipital bone by the tendinous end m m. n the tendinous part of the ſecond belly.

o o, o o The ſpinal muſcles of the neck.

p q r s t The left interſpinals of the neck, cloſe to which lie the right. p that betwixt the ſpines of the firſt and ſecond vertebra of the neck: q between thoſe of the ſecond and third: r between thoſe of the third and fourth: s between thoſe of the fourth and fifth: t betwixt the ſpines of the fifth and ſixth.

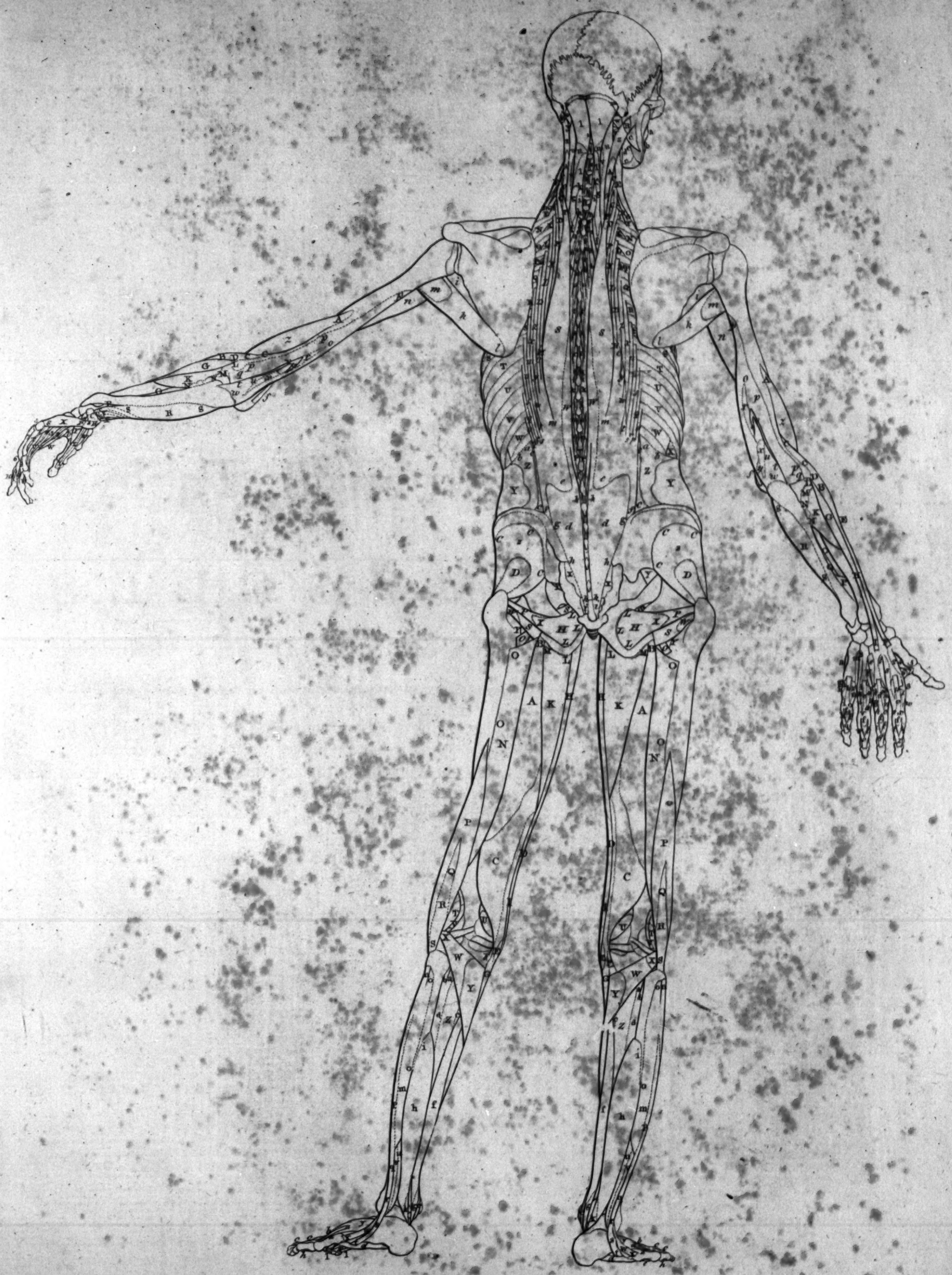
u y. u y The compleſt muſcles. y the tendinous part.

w. w x The upper oblique muſcle of the head. x the parts inſerted into the occipital bone.

y. y The lower oblique muſcles of the head.

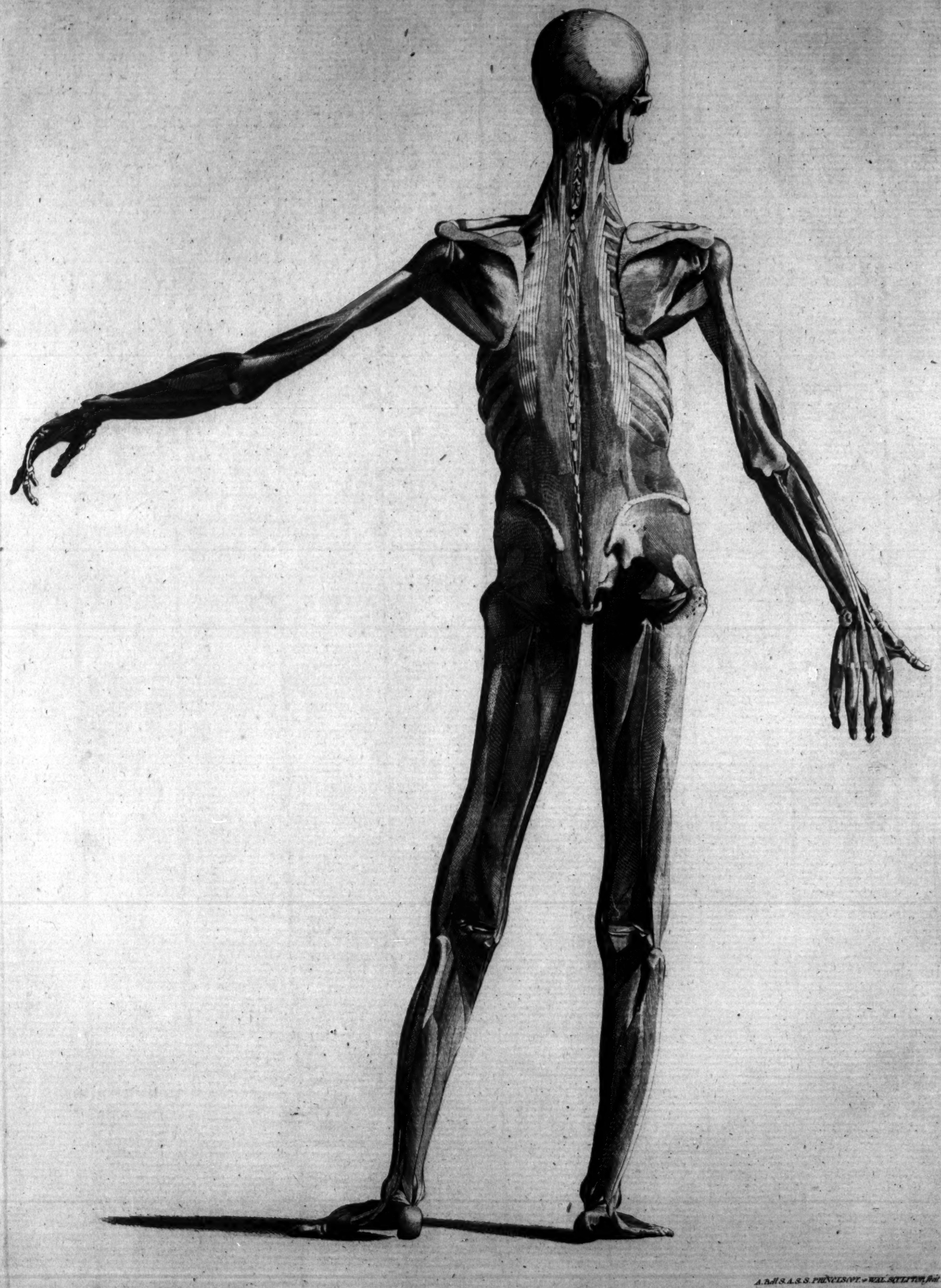
z A B. z A B The trachelomaſtoidei. A the tendinous part. B the tendinous end, inſerted into the maſtoide proceſs.

TAB. VII.



A. Bell Sculp.

TAB. VII.



A. Bell S.A.S.S. PINXIT et SCULPSIT, Edin.

C C. C C The tranſverſales of the neck.
D D The cervicales deſcendentes.
E E The middle ſcaleni.
F G H. F G H The poſterior ſcaleni. F its origin from the ſecond rib. G the tail belonging to the tranſverſe proceſs of the third vertebra of the neck, H to the ſecond.
I K L M: I K L M The elevators of the ribs. I of the ſecond. K of the third. L of the fourth. M of the fifth.
N O P Q R R S S T U V W: N O P Q R S S T U V W The outer intercoſtal muſcles. N the ſecond. O the third, &c.
X X The twelfth of the inner intercoſtal muſcles.
Y Z *a b*. Y Z *a b* The tranſverſe muſcles of the abdomen. Y the fleſhy part, Z the broad tendon by which it ariſes, and adheres to the bottom of the edge of the lowermoſt or twelfth rib, as well the bony part *a*, as cartilage *b*, even to its tip.
c c. *c c* The inner plates of the common aponeuroſes of the lower poſterior ſerrati, and inner oblique muſcles of the abdomen; they are here cut off where they no longer adhere to the broad tendons by which the tranſverſe muſcles of the abdomen begin.
d e f g h i k k l m n o p q r ſ s v t u w x y z C D H L X P S W Y O. d e f g h i k k l m n o p q r ſ s v t u w x y z C D H L X P S W Y O The ſacrolumbales with the longiſſimi muſcles of the back. *d e f g h i k k l m* the common head by which they begin. *d* the tendinous part, *e* the fleſhy part. *f g h* the origin of that head from the ſpine or edge of the os ilium, *f* the fleſhy part, *g h* the tendinous part. *h i* the part where it adheres to the gluteus magnus. *i k* the tendinous part ariſing from the two upper tubercles near the opening of the end of the canal of the os ſacrum. *k k* the tendinous part diſcontinued one from the other, compoſed of the tendons ariſing from the ſpines of the two lower lumbal vertebræ and all thoſe of the os ſacrum. *l* the tendon ariſing from the ſpine of the third lumbal vertebra. *m* the diviſion of this common head into the ſacrolumbalis and longiſſimus dorſi muſcles.
n o p q r ſ s v t u w x y z C D H L X P. n o p q r ſ s v t u w x y z C D H L X P The ſacrolumbales. *n o*, &c. the tails belonging to the ribs: *n o* that to the eleventh rib, *p q* to the tenth, *r ſ* to the ninth, *s v* to the eighth, *t u* to the ſeventh, *w x* to the ſixth, *y z* to the fifth, *C D* to the fourth, *H L* to the third, *X* to the ſecond, *P* to the firſt: *n p r s t w y C H* the fleſhy parts of thoſe tails. *o q ſ v u x z D L X P* the tendinous parts.
S W Y O. S W Y O The longiſſimi dorſi. *W* the tendinous part of the common head running thro' the longiſſimus. *Y* the tail aſcending thro' the neck, where it gives a tendinous portion *O* to the trachelomaſtoideus, and at laſt joins itſelf to the deſcending cervicalis.

In the Trunk.

a b c d e g h. a b c d e g h The ſemiſpinales of the back. b the head ariſing from the tranſverſe proceſs of the ſixth vertebra of the back, counting from the loins. c the tendinous end which is inſerted into the ſpine of the ſecond vertebra of the neck from the back; d that to the firſt of the neck; e that to the uppermoſt of the back; g to the eleventh of the back; h to the tenth.
i k l m n p q r s t u v w. i k l m n p q r s t u v w The ſpinales of the back. k the head ariſing tendinous from the ſpine of the third vertebra of the back, counting from the loins; l the head from that of the ſecond; m from that of the firſt; n from that of the fifth vertebra of the loins; p from that of the fourth. q the extremity inſerted (by the tendon which it forms) into the ſpine of the fifth vertebra of the back; r the end to the ſixth; s to the ſeventh; t to the eighth; u to the ninth; v to the tenth w to the eleventh.
Betwixt the heads of the ſpinales dorſi, near the ſpines, and betwixt the parts of the longiſſimi dorſi *l k* appear the multifidi ſpinæ.
Betwixt the ſpines of the three lower vertebræ of the back appear the interſpinales of the back.
Betwixt the ſpine of the loweſt vertebra of the back and uppermoſt of the loins, appear the interſpinales lumborum, as alſo they appear betwixt the ſpines of the lumbal vertebræ, and between the lower lumbal ſpine and uppermoſt of the os ſacrum. The ſpaces are ſo minute that letters could not be fixed on them; but Tab. VIII. will give a better knowledge of them.
x x The multifidi of the ſpine.
y y The great pſoæ or lumbal muſcles of the thighs.
z *C C C D*. z *C C C D* The leaſt glutei. *C C C* the origin from the back of the os ilium. *D* the tendinous part by which the tendinous end begins from the outer part of the fleſh.
H L L L X P. H L L X P The internal obturators. *H* the part ſeated in the pelvis, and there ariſing from the margin of the great foramen *L L L* of the os innominatum. *X P* the part which goes over the back of the iſchium to the femur. *P* the tendon which it forms.
S S W. S S W The external obturators. *W* the tendinous end.
Y Y The internal iliacs, by their inſertions.
O. O The tendons common to the great lumbal or pſoæ muſcles and internal iliacs, inſerted into the leſs trochanters.
A B C D E F G. A B C D E F G The ſemimembranoſi. A the tendon by which it begins and ariſes at B from the back of the tubercle of the iſchium. C the fleſhy belly. D the origin of the tendinous tail from the fleſh. E the principal part of the ſaid tail belonging to the upper head of the tibia: F the poſterior aponeuroſis which this muſcle inſerts below the root of the upper head of the tibia: G the anterior aponeuroſis which it inſerts into the inner margin of the tibia. In its head and belly is a ſinus impreſſed by the ſemitendinoſus. See Tab. VI.
H I. H I The graciles. I the tendon
K L M N O O. K L M N O O The large adductors of the thighs, in which are impreſſed the marks of the large glutei: See Tab. V. L the part ariſing from the os pubis. M its origin from the tubercle of the iſchium, externally tendinous. N O O the upper end inſerted into the femur O O.
P Q R S. P Q R S The ſhorter heads of the biceps muſcles of the legs. Q part of the tendon cut off which ariſes from the longer head. R part of the tendon which is increaſed by the acceſſion of the fleſh of the ſhorter head. S the tendinous end inſerted into the upper head of the fibula.
T T The outer heads of the gemelli of the legs. U U the inner, cut off.
V V The plantares muſcles cut off.
W X Y. W X Y The poplitei. X the tendon by which it begins. Y a tendinous part.
Z a b c d e. Z a b c d e The tibiales poſtici. a the part which ariſes from the tibia, b the part from the fibula, c d the tendinous ſurface. e the tendon.
f g. f g The long flexors of the toes. g the tendon.
h i k. h i k l l The long flexors of the great toes. i the origin from the tibia: k the tendon. l l its courſe under the bottom of the foot and toe.
m n o o p q r s t. m n o o p q r s t The long peronei. n one of its origins from the head of the fibula. o o the other from the ſpine of the fibula.
p q r s t The tendon, ariſing from the fleſh at p: r s t the knots or turnings of the tendon, r the firſt by which it bends at the outer ancle; s the ſecond, at the protuberance in the outer ſide of the calcaneum; t the third at the cubiform bone.
u v w x. u v w x The ſhort peronei. v part of the tendon ariſing from the fleſh: w the tendon, inſerted at x into the metatarſal bone of the little toe.
y z *a b*. y z *a b* The ſhort extenſors of the toes. z the tail belonging to the third of the ſmall toes, *a* that to the ſecond, *b* that to the firſt.
c c: *c c* The tendons ſtretched over the backs of thoſe toes.
d d The heads which join the long flexors of the toes in the ſoles of the feet.
e e The interoſſei muſcles of the little toes.
f The tendons of the long flexors of the toes, joined with the lumbricales as they paſs along.
g The tail of the ſhort flexor of the great toe, which belongs to the ſeſamoide bone next the firſt of the ſmall toes.
h h The tendons of the long flexors to the ſmall toes.

In the Shoulders, upper Extremities, and left Hand.

i i The ſubſcapular muſcles.
k l m. k l m The larger teretes. *l* the origin from the angle of the ſcapula. *m* the tendinous part.
n. n The coracobrachiales.
o p p p q r ſ. o p p p q r ſ The external brachiales; in which are impreſſed the marks of the long and ſhort extenſor of the elbow; ſee Tab. VI. *p p p* its origin from the humerus, and from the root of the anterior condyle *q*, *r* the tendinous part. *ſ* a tendinous part ariſing from the ſurface of the outer brachialis, and belonging to the greater condyle of the humerus.
t The fleſhy part of the extenſor longus cut off. *v* part of the brevis cut off, which is outwardly tendinous, inwardly fleſhy. *t* the place from whence is cut off part of the common tendon of the three heads of the triceps brachialis, *u w x y* the common tendon of the triceps brachialis, inſerted into the elbow or head of the ulna at *w*. *x* the tendinous part from the longus to the common tendon: *y* the tendinous part formed by the brachialis externus, which joins the common tendon.
z A. z A The brachialis internus, wherein is a ſinus impreſſed by the ſupinator longus: ſee Tab. VI. A the origin of the outer horn from the os humeri.
B C C D. B C C D E F The longer of the external radiales. C C its origin from the anterior edge and condyle of the os humeri, D the part where it is conjoined and has a common origin with the common extenſor of the fingers and outer ulnaris. E the tendon inſerted at F into the metacarpal bone of the index.
G. G H I The ſhorter external radiales, having a ſinus impreſſed by the common extenſors of the fingers: See Tab. VI. H the tendon inſerted at I into the metacarpal bones of the index and middle finger.
K L M N N. K L M N N The ſhort ſupinators. L M part of the tendinous origin from the anterior condyle of the humerus at L, and connected at M with the capſule of the joint of the elbow. N N part of the origin from a protuberance of the ulna, outwardly tendinous.
O O The long flexors of the thumbs.
P P The ſquare pronators.
Q R S S. R S S T T U U U V V W W The profundi flexors. S S the origin from the ulna. T T the tendon belonging to the little finger, U U U the tendon to the ring finger, V V that to the middle finger, W W that to the index.
X X Y The tendon of the long flexor of the thumb, inſerted at Y into the laſt bone of the thumb.
Z *C D H* The ligament, which with the carpal ſinus forms a channel wherein are confined the tendons of the ſublimis and profundus from the fore-arm to the hand, with the long flexor of the thumb. *C* the origin of this ligament from the piſiform bone, from the unciform proceſs of the cuneiform bone *D*, and from the larger multangular bone *H*.
L The ligament that goes from the piſiform bone to the fourth bone of the metacarpus.
X P S The adductor of the metacarpal bone of the little finger, ariſing at *P* from the carpal ligament, and inſerted at *S* into the fourth metacarpal bone.
W Y The ſhort flexor of the thumb. *W* one tail inſerted tendinous into the ſeſamoide bone of the thumb which is fartheſt from the index. *Y* the other tendinous end inſerted into the firſt internode and ſeſamoide bone of the thumb neareſt the index.
O The adductor of the thumb.
1 2 3 4 The lumbrical muſcles of the fingers; 1 that of the index, 2 that of the middle finger, 3 that of the ring finger, 4 that of the little finger.
5 The tendon of the extenſors of the little finger, belonging to the firſt bone of that finger at 6.
7 The tendon common to the ſmall flexor and abductor of the little finger, joined to the tendon of the extenſor of that finger.
8 The tendon running to the third bone of the little finger, formed of the tendon 7, joined by a portion of the extenſor tendon of this finger.
9 10 The ſame tendons which in the right hand are marked *w b c. t y z*.

In the right Hand.

a The adductor of the fourth metacarpal bone.
b c d e The extenſor tendons of the fingers cut off at their roots, paſſing over their backs, and conjoined with the tendons and aponeuroſes of the interoſſei, lumbrical, &c. muſcles. f f f f the ends of thoſe tendons inſerted into the bones of the ſecond order.
g The part whence the abductor of the little finger is cut off. h its tendon.
i The common tendon of the abductor and ſmall flexor of the little finger joined with the tendon b, and being increaſed by a portion received from thence, runs to the third bone of the little finger, k
l The aponeuroſis which ariſing from the capſule of the joint of this finger with its metacarpal bone, belongs to the tendon b.

m n The interoſſeus of the little finger, ariſing from the metacarpal bone at m. n its tendon joined with the tendon of the fourth lumbricalis.

o The tendon common to the interoſſeus of the little finger and fourth lumbricalis, conjoined with the tendon h. and being increaſed by a portion received from thence, it runs to the third bone of the little finger.

q The common end of the tendons k p, belonging to the third bone of the little finger.

r The aponeuroſis which joins the tendon h, coming in its upper part from the capſule of the joint of this finger with the metacarpus: below produced by the tendon n of the interoſſeus of the little finger, with which tendon is conjoined the tendon of the fourth lumbricalis.

s The head of the inner interoſſeus of the ring finger ariſing from the metacarpal bone of that finger. t the end of the other head cut off, ariſing from the metacarpal bone of the little finger. v the tendon that at v joins the tendon c, and being increaſed by a portion received from thence, runs to the third bone of the ring finger w.

x The aponeuroſis that joins the tendon c, coming in its upper part from the capſule of the joint of this finger with the metacarpus: below produced from the tendon u of the inner interoſſeus of the ring finger.

y z The outer interoſſeus of the ring finger, ariſing at y from the metacarpal bone of that finger. z its tendon, which joins the tendon of the third lumbricalis.

a The tendon common to the outer interoſſeus of the ring finger and third lumbricalis, joined with the tendon c, and being increaſed by a portion received from thence, runs to the third bone of the ring finger *b*.

c The common end of the tendons w *b*, belonging to the third bone of the ring finger.

d The aponeuroſis that joins the tendon c, coming in its upper part from the capſule of the joint of this finger with the metacarpus; below produced from the tendon z of the outer interoſſeus of the ring finger, with which tendon joins the tendon of the third lumbricalis.

e The head of the inner interoſſeus of the middle finger ariſing from the metacarpal bone of that finger. *f* the end of its other head cut off, which ariſes from the metacarpal bone of the ring finger. *g* the tendon which ſoon after joins at *b* with the tendon d, and being increaſed by a portion received from thence, runs to the third bone of the middle finger *i*.

k The aponeuroſis that joins the tendon d, coming in its upper part from the capſule of the joint of this finger with its metacarpus: below produced from the tendon *g* of the inner interoſſeus of this middle finger.

l The head of the outer interoſſeus of the middle finger ariſing from the metacarpal bone of that finger. *m* the end of its other head cut off, that ariſes from the metacarpal bone of the index. *n* the tendon that joins itſelf with the tendon of the ſecond lumbricalis.

o The tendon common to the outer interoſſeus of the middle finger and ſecond lumbricalis, which, after joining the tendon d, is increaſed by a portion received from thence, and runs to the third bone of the middle finger *p*.

q The common end of the tendons *i p*, belonging to the third bone of the middle finger.

r The aponeuroſis that joins the tendon d, coming in its upper part from the capſule of the joint of this middle finger with its metacarpus: below produced from the tendon *n* of the outer interoſſeus of this middle finger, with which tendon is conjoined the tendon of the ſecond lumbricalis.

ſ t The inner interoſſeus of the index, ariſing at *ſ* from the metacarpal bone of the index. *t* with the tendon e, and being increaſed by a portion received from thence, runs to the third bone of the index *t*.

u The aponeuroſis that joins the tendon e, coming in its upper part from the capſule of the joint of this fore-finger with the metacarpus: in its lower part produced by the tendon *ſ* of the inner interoſſeus of this fore-finger.

w The tendon of the firſt lumbricalis which at *x* joins with the tendon e, and being increaſed by a portion received from thence, runs to the third bone of the index *y*.

z The common end in which unite the tendons *t y*, belonging to the third bone of the index.

1 The aponeuroſis which being produced from the firſt lumbricalis, joins with a like aponeuroſis from the abductor ot the index, and therewith joins the tendon e.

2 3 The outer interoſſeus of the index, ariſing at 2 from the metacarpal bone of the index. 3 the tendinous end inſerted into the firſt bone of the index.

4 5 The ſhort flexor of the thumb. 5 the aponeuroſis which it ſends out and joins with the aponeuroſis inveſting the capſule of the joint of the thumb with the metacarpus, and therewith joins the common end of the extenſor tendons of the thumb.

6 7 The adductor of the thumb, 7 the tendinous end inſerted into its firſt bone.

THE

Eighth Anatomical Table

OF THE

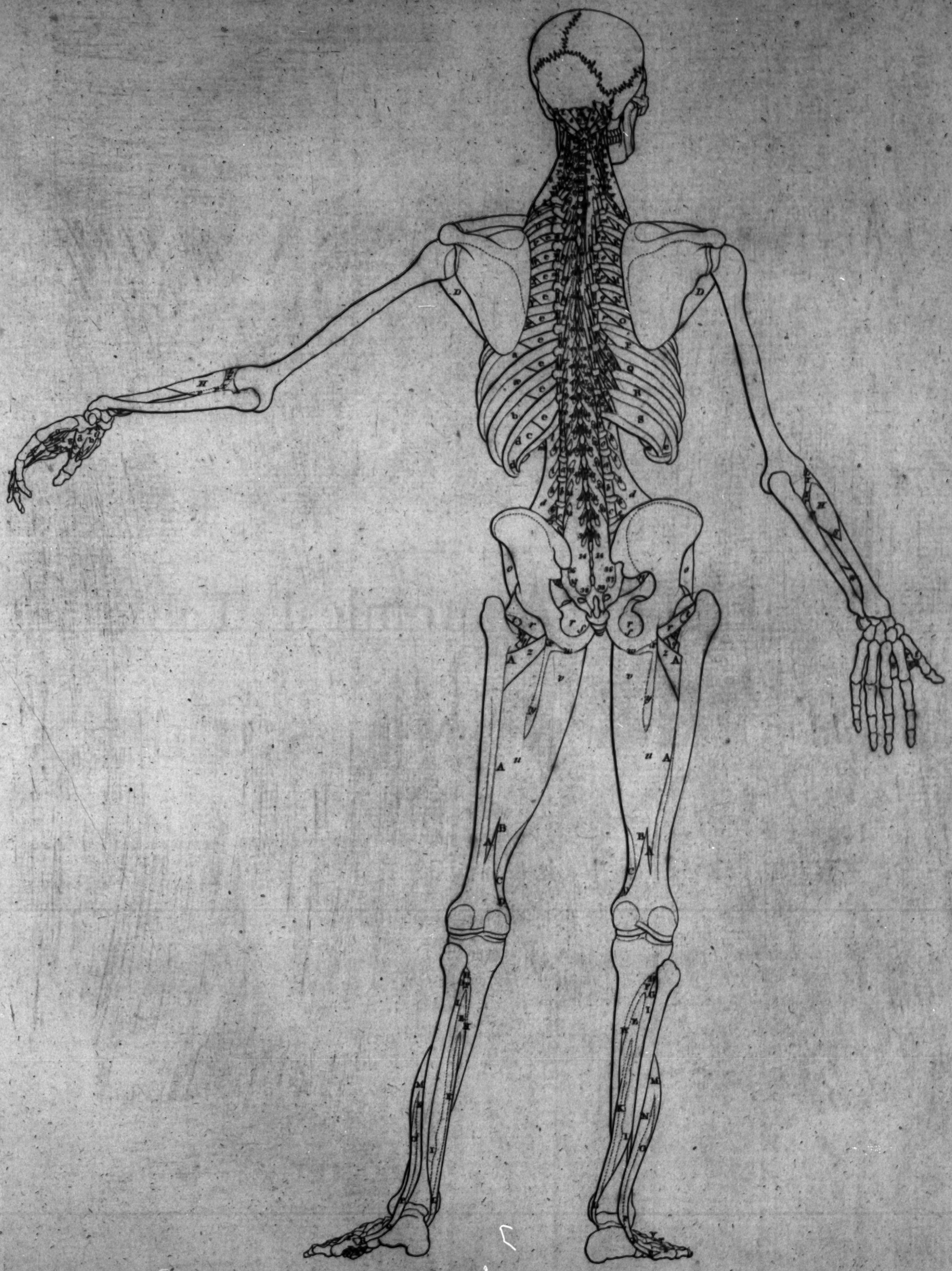
HUMAN MUSCLES

EXPLAINED.

THIS is the fourth or laſt order of the muſcles on the back part of the body, with the Skeleton laid more naked; becauſe moſt of the outer muſcles, in the preceding figure, are here removed. This figure is a back view of that contained in the fourth table, but not wholly ſo; ſince neither the internal pterygoidei, external ſphincter of the anus, tranſverſales of the perinæum, nor interoſſei and tendons of the fingers in the right hand, are any of them repreſented here as in that figure: but we have repreſented the interoſſei, with the tendons in the left hand; ſince we expreſſed them in the third table, but omitted them in the fourth.

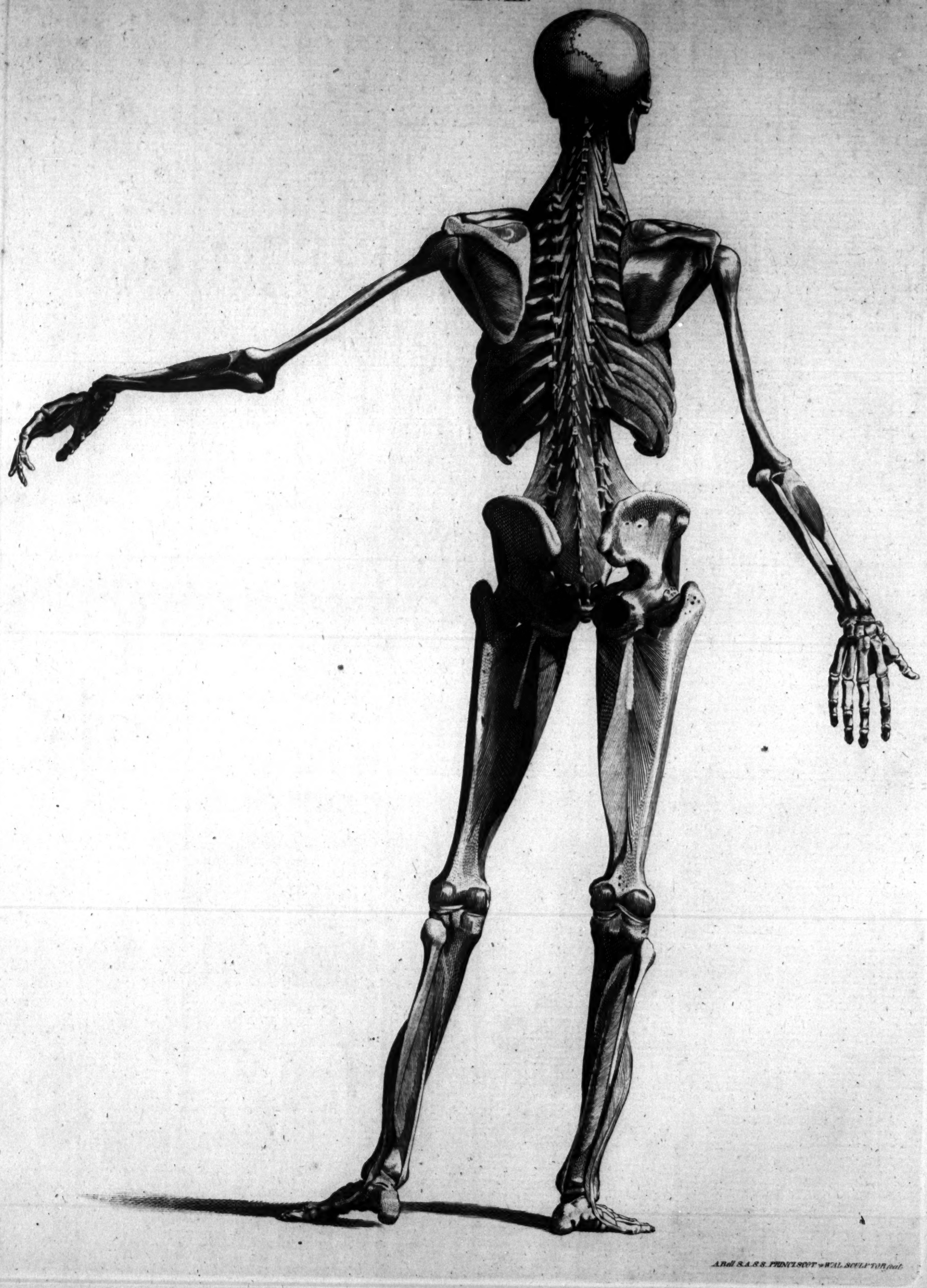
We have here taken away, from the head, that part of the buccinator which joins the orbicularis of the mouth, the internal pterygoideus, and mylohyoideus. From the neck, the cervical biventers, the deſcending cervicales, the poſterior ſcaleni; and from the left ſide, the ſpinalis of the neck. From the back and loins, the ſacrolumbales, with the longiſſimi dorſi and ſpinales dorſi: and from the left ſide of the ſpine, the ſemiſpinales dorſi; from the left ſide of the thorax, the ſhorter elevators of the ribs, except the firſt; the long elevators and outer intercoſtals. From the ſides, betwixt the thorax and hips are taken the tranſverſales of the abdomen, together with the inner plates of the aponeuroſes, common to the poſterior and lower ſerrati, with the internal obliqui of the abdomen. From the hips and nates the leſs glutei and internal obturators. From the thighs the graciles, ſemimembranoſi, bicipitals of the legs, origins of the gemelli and plantares. From the legs and feet, the poplitei, the long peronei, the long flexors of the great toes, and the long flexors of the ſmall toes. From the feet the ſhort extenſors of the toes, the fleſhy heads that join the long flexors of the toes in the ſoles of the feet, the interoſſei of the little toes, the tendons of the long flexors of the toes, with the lumbricales. From the ſhoulder-blades and arms, the larger teretes, the coracobrachiales, the internal brachiei, and the tricipital extenſors of the arms. From the fore-arms and hands, the longer and ſhorter external radiales, the profundi flexors, and the long flexors of the thumbs. Alſo from the left hand are removed the inner circular ligament, the ligament from the piſiform bone of the wriſt to the fourth metacarpal bone. The adductor of the fourth metacarpal bone of the hand, the lumbricales, the tendon of the extenſors of the little finger, with the tendon common to the ſmall flexor and abductor of the little finger, joined to its extenſor tendon; the tendon common to the firſt lumbricalis and extenſors of the index, belonging to the third bone of the index. From the right hand are taken all the muſcles, tendons, and aponeuroſes, except the adductor and ſhort flexor of the thumb.

TAB. VIII.



A. Bell Sculp.

TAB. VIII.



A.Bell S.A.S.S. PENTLAND WAL. SCULPTOR fecit.

In the Head and Neck.

a b c c a b c c The leſs poſterior recti muſcles of the head. b the origin from the protuberance of the atlas which is inſtead of a ſpinal proceſs, from which origin it is outwardly tendinous. c c the end inſerted into the occipital bone.

d e f. d e f The larger poſterior recti muſcles of the head. e the origin from the ſpine of the epiſtrophæus. f the end inſerted into the occipital bone.

g. g h i i The upper obliqui of the head. h the origin from the tranſverſe proceſs of the epiſtrophæus. i i the end inſerted into the occipital bone near the appendix of the lambdoidal ſuture.

k l m k l m The lower obliqui of the head. l the origin from the ſp ineof the epiſtrophæus. m its extremity inſerted into the tranſverſe proceſs of the atlas.

n n The fifth interſpinals of the neck. o o the fourth. p p the third. q q. the ſecond. r r the firſt.

s t u v w x y z *a b c*. s t u v w x y z *a b c* The middle ſcaleni. t the origin from the firſt rib. u the head that joins it from the tranſverſe proceſs of the firſt vertebra of the neck, v that from the ſecond w x y z *a b c* the extremities inſerted into the tranſverſe proceſſes of the vertebræ of the neck, viz. w of the firſt, x of the ſecond, y of the third, z of the fourth. *a* of the fifth. *b* of the ſixth. *c* of the ſeventh.

d The poſterior intertranſverſales of the neck, the ſixth in order. *e* the fifth, which is alſo expreſſed on the left ſide. *f f* the fourth. *g* the third, which is alſo in the right ſide. *h h* the ſecond. *i* the firſt, which is alſo in the right ſide.

In the Back.

k k, &c. The ſhorter elevators of the ribs, *k k* thoſe of the firſt ribs, *l* of the ſecond, *m* of the third, *n* of the fourth, *o* of the fifth, *p* of the ſixth, *q* of the ſeventh, *r* of the eighth, *ſ* of the ninth, *t* of the tenth, *t* of the eleventh, *u* of the twelfth. *w* the tendinous beginning of the twelfth. *x* the tendinous part of the inſertion, which is alſo repreſented in the eleventh, tenth, and ninth. *y z z* the parts of the ſixth ſhort elevator, *y* its origin from the tranſverſe proceſs of the eighth vertebra of the back, *z z* its end inſerted into the rib: from whence alſo the origin and inſertion of the reſt of theſe muſcles may be underſtood. Theſe muſcles are taken off from the left ſide, except the firſt of them.

A B C D E The longer elevator of the tenth rib: B its origin from the tranſverſe proceſs of the eighth vertebra of the back; C part of its origin which is outwardly tendinous: D the extremity inſerted into the tenth rib, of which E denotes the tendinous part. This explanation belongs alſo to thoſe longer elevators which follow. F the longer elevator of the tenth rib; G that of the twelfth rib. Thoſe of the left ſide are removed.

H I K, &c. The outer intercoſtals, H the firſt, I the ſecond, K the third, L the fourth, M the fifth, N the ſixth, O the ſeventh, P the eighth, Q the ninth, R the tenth, S the eleventh. Thoſe of the left ſide are taken off.

T U V W, &c. Denote the internal intercoſtals, T the firſt, U the ſecond, V the third, W the fourth, X the fifth, Y the ſixth, Z the ſeventh, a the eighth, æ æ the ninth. b the tenth, c c the eleventh. d d the origin of the laſt from the rib next above; which holds true likewiſe in the firſt, ſecond, third, ſeventh, eighth, ninth, and tenth.

e e, &c. Denote the pleura uncovered.

f f g g, &c. The intertranſverſales of the back, f f the firſt (reckoning upwards), g g the ſecond, h h the third, i i the fourth, k k the fifth, l l the ſixth, m m the ſeventh, n n the eighth, o o the ninth.

p q r s t u v w x y z 1 The ſemiſpinalis of the back. q r s t four of the heads ariſing tendinous from the tranſverſe proceſs q, of the third vertebra of the back, counting from the loins, r that of the fourth, s of the fifth, t of the ſixth. u v w x y z 1 the ſeven tails turning into tendons, and belonging to the ſpine of the eighth vertebra of the back u, to the ninth v, to the tenth w, to the eleventh x, to the twelfth y, to the firſt of the neck z, to the ſecond 1. The left is taken off.

In the Back and Neck.

2 3 4 5 6 7 8 9 10 11 12 13 The ſpinalis muſcle of the neck. 3 4 5 6 7 8 the ſix heads by which it ariſes tendinous; 3 the origin from the tranſverſe proceſs of the ſeventh vertebra of the back, from the loins, 4 from that of the eighth, 5 of the ninth, 6 of the tenth, 7 of the eleventh, 8 of the twelfth. 9 10 11 12 13 the tails inſerted into the ſpinal proceſs of the ſecond vertebra of the neck 9, counting from the back, 10 to that of the third vertebra, 11 to the fourth, 12 to the fifth, 13 to the ſixth. The left ſpinalis muſcle of the neck is here taken away.

14 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62: 14 14 15 16 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 61 62 The multifidi muſcles of the ſpine. 15 the tendinous head which ariſes from the oblique deſcending proceſs of the fourth vertebra of the neck: 16 a like head from the third vertebra, 17 that from the ſecond: 18 that from the tranſverſe proceſs of the twelfth or uppermoſt vertebra of the back: 19 that from the eleventh: 20 that from the tenth: 21 from the ninth: 22 from the eighth: 23 from the ſeventh: 24 form the ſixth: 25 from the fifth: 26 from the fourth: 27 from the third: 28 from the ſecond: 29 the tendinous excurſion of the head which ariſes from the tranſverſe proceſs of the firſt vertebra of the back: 30 the like ariſing from the oblique aſcending proceſs of the fifth or uppermoſt vertebra of the loins: 31 that from the oblique aſcending proceſs of the fourth lumbal vertebra: 32 that from the oblique aſcending proceſs of the third lumbal vertebra: 33 that from the ſecond. 34 that from the firſt: 35 that from the firſt of the os ſacrum: 36 37 the head which ariſes partly from the ligament (36) coming from the protuberance, which the os ſacrum forms at the outer edge of its ſecond and third opening, and coninued down to the lower part of that bone; and partly from that protuberance itſelf 37: 38 the head which ariſes all the way from the third ſpine of the os ſacrum, to the tubercle of that bone, which is formed by the concretion of the oblique deſcending proceſs of its fourth vertebra, with the oblique aſcending proceſs of the fifth, and from that tubercle itſelf. 39 40 41, &c. the tendinous ends inſerted into the ſpines of the vertebræ; 39 that to the firſt or lowermoſt of the loins, 40 to that of the ſecond, 41 of the third, 42 of the fourth, 43 of the fifth, 44 of the firſt of the back, 45 of the ſecond, 46 of the third, 47 of the fourth, 48 of the fifth, 49 of the ſixth, 50 of the ſeventh, 51 of the eighth, 52 of the ninth, 53 of the tenth, 54 of the eleventh, 55 of the twelfth, 56 of the firſt of the neck, 57 of the ſecond, 58 of the third, 59 of the fourth, 60 of the fifth, 61 of the ſixth, and 62 into the oblique deſcending proceſs of the ſaid ſixth vertebra of the neck.

C C D D The interſpinales muſcles of the back. *C C* the ſecond, *D D* the firſt.

H H L L X X P P S S W W The interſpinales of the loins. *H H* the ſixth, *L L* the fifth: *X X* the fourth, *P P* the third, *S S* the ſecond, *W W* the firſt.

In the Loins, Hips, and lower Extremities.

Y Y O O a a b b c c The intertranſverſales muſcles of the loins. *Y Y* the fifth, *O O* the fourth, *a a* the third, *b b* the ſecond, *c c* the firſt. The manner of their origin from the lower tranſverſe proceſs, and inſertion into the upper, is here apparent.

d e g b i k l. d e g b i k l The quadrati of the loins. *e* the origin from the ligament *f*, that is extended from the tranſverſe proceſs of the firſt lumbal vertebra to the os ilium. *g b i k* tendinous portions belonging to the tranſverſe proceſſes of the lumbal vertebræ, *g* to the ſecond, *b* to the third, *i* to the fourth, *k* to the fifth, *l* the extremity belonging the twelfth rib.

m Part of the diaphragm.

n n The great pſoæ, or lumbal muſcles of the thighs.

o p. o p The internal iliacal muſcles.

q q The tendons common to the great pſoæ and internal iliacs, inſerted into the leſs trochanters.

r r ſ t. r r ſ t The external obturators. *ſ* part of the origin from the inner margin of the great foramen or hole in the os innominatum. *t* the tendinous end.

v u w x y z A A A B C D. *v u w x y z* A A A B C D The great adductors of the thighs, in the upper part of which, near the inner ſide, are impreſſed the marks of the largeſt glutei, ſee Tab. V. and of the ſemitendinoſi, ſee Tab. VI. *u* all that part which is concave from the impreſſion of the ſemimembranoſus. *w x* the origin from the back of the tuberele of the iſchium by the tendinous part *w*, *x* the tendon which runs through the muſcular fleſh *y*. *z* the part that comes from the fore ſide of the pelvis, where it ariſes along the whole height of the os pubis. A A A the broad end inſerted into the thigh bone. B C D the lower end, which forming the tendon C, is inſerted into the inner condyle of the thigh bone at D.

E F G H H I I K L. E F G H H I I K L The tibiales poſtici. F the origin ſpringing from the tibia, G the origin from the fibula. H H its origination from the tibia, from whence it comes outwardly tendinous. I I the part that ariſes outwardly tendinous from the fibula. K L the tendon, ariſing from the fleſhy part at K, and paſſing behind the inner ancle at L.

M N O P Q R. M N O P Q R The ſhort peronei. N the origin from the fibula. O P Q R the tendon, ariſing from the fleſhy part at O, becoming thicker and broader at P, where it bends round the outer ancle, and at Q paſſes through the ſecond ligament near the upper part of the protuberance of the calcaneum; it is inſerted into the fifth metatarſal bone at R.

S S The heads of the ſecond interoſſei of the little toes, which ariſe from the metatarſal bone of thoſe toes.

T The head of the ſecond interoſſeus of the third toe, which ariſes from the metatarſal bones of that toe.

V The head of the ſecond interoſſeus of the ſecond toe, ariſing from the metatarſal bone of that toe.

W X The two tails of the ſhort flexor of the great toe, inſerted into the ſeſamoidal bones.

Y The ſecond interoſſeus of the fourth toe.

Z The tranſverſalis of the foot.

G The adductor of the great toe.

In the Shoulders, Arms, and Hands.

D D The ſubſcapulares.

H L X X P P. H L X X P P S The ſhort ſupinators. *L* the tendon ariſing from the leſs condyle. *X X P P* the part which is outwardly tendinous, ariſing from the capſule of the joint of the elbow at *X X*, and from the ulna at *P P*. *S* the end inſerted into the radius.

W W The ſquare pronators.

Y O a b c d e. Y f The ſhort flexors of the thumbs, *O* the origin from the inner protuberance of the larger multangular bone, and from the leſs multangular bone at *a*. b the anterior or outer tail, inſerted by the tendinous end c, into the ſeſamoidal bone of the thumb, which is fartheſt from the index. d the poſterior or inner tail, inſerted by the tendinous end e, into the ſeſamoidal bone of the thumb, which is neareſt the index, and likewiſe into the firſt bone of the thumb itſelf. f the aponeuroſis which goes from the poſterior tail, and joins itſelf to the common end of the tendons of the extenſors of the thumb.

g g h. g h The adductors of the thumbs. h The tendinous end inſerted into the firſt bone of the thumb.

i The poſterior or inner interoſſeus of the index.

Near k appear the outer interoſſeus of the middle finger.

l l The poſterior or inner interoſſeus of the middle finger.

m. The outer interoſſeus of the ring finger.

n n The inner interoſſeus of the ring finger.

o The interoſſeus of the little finger.

p The tendon of the inner interoſſeus of the index, which being increaſed by a portion received from the tendon of the extenſor of the index, runs to the third bone of the index, joining in its common end with the tendon of the firſt lumbricalis, and is increaſed likewiſe by a portion from the extenſors of the index.

q The tendon common to the outer interoſſeus of the ring finger and third lumbricalis, which being increaſed by a portion received from the tendon of the common extenſor that belongs to this finger, runs to the third bone of this ſaid finger.

r The tendon of the inner interoſſeus of the ring finger, which being increaſed by a portion from the common extenſor to this finger, runs to the third bone of the ſaid ring finger, and joins the tendon q in the common extremity.

THE

Ninth Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

AS in the firſt Table, ſo in this, we exhibit the primary or outermoſt order of the muſcles, after the common integuments and tendinous coverings have been removed; to theſe we have added ſome of the ligaments belonging to thoſe muſcles, and ſome parts of the third Skeleton, which makes the baſis of the preſent figure; with ſome other parts which are not covered with muſcles, as of the noſe, ear, and genitals.

In the Head, Neck, and Trunk.

a b c. a b c d e f The epicranius. a b the occipitalis. a its tendinous beginning. b the fleſhy part. c d the aponeuroſis betwixt the occipital and frontal muſcles; through which ar'd the temporal muſcle appears protuberant. e the membranous part by which the occipital muſcles and their aponeuroſes are joined to each other; ariſing above the origin of the cucullares from the occipital bone. f the frontalis.

g h The elevator of the outer ear. g the tendinous beginning, by which it goes off from the epicranius. h the fleſhy part.

i The anterior muſcle of the outer ear.

k l m The three retractive muſcles of the outer ear.

n The greater muſcle of the helix

o The leſs muſcle of the helix.

p Trajicus.

q Antitrajicus.

r s t t The orbicularis of the eye-lids. r the part which ſurrounds the edge of the orbit of the eye. s a part which comes from the corrugator of the eyebrows. t t the part which is ſpread over the eye-lids.

u The compreſſor of the noſe.

v The naſalis of the upper lip.

w x. w x The orbicularis of the mouth. x the part which is in the red margin of the lip.

y z The greater zygomaticus. z its origin from the os jugale.

a b The depreſſor of the corner of the mouth, *b* its origin from the lower jaw.

c The buccinator muſcle.

d e f g b The maſſeter. *d e* the anterior and outer part; *e* its origin from the os jugale, from whence outwardly it is for a good way tendinous. *f g b* the back part which is not covered by the former; *g b* its origin from the os jugale at *g*, and from the jugal proceſs of the temporal bone at *b*.

i k The internal pterygoideus inſerted into the mandible at *k*.

l The Stylochyoideus.

Betwixt *k* and *l* is the ſtyloglóſſus. See Tab. X. Fig. 2. m.

Immediately below the ſtyloglóſſus is the baſioglóſſus. See Tab. X. 1. k. and Fig. 2. o.

m n o p q The latiſſimus colli or quadratus genæ. *n n*, &c. the muſcular portions which join it on the ſides of the neck in ſome people. *o* the diſperſed fibres by which it ends and diſappears in the upper part of the cheek. *p* the faſciculus or portion which is ſtretched through the fore part of the depreſſor of the angle of the mouth, towards the ſaid angle. *q* the lower jaw protuberant under the platyſmamyoides or ſquare muſcle of the neck and cheek.

r ſ The ſternomaſtoideus and cleidomaſtoideus joined together in one. *ſ* the tendinous end.

t The biventor of the neck, inſerted by its tendinous end into the occipital bone.

u The ſplenius of the head.

w The ſplenius of the neck.

x The middle ſcalenus.

y The elevator of the ſcapula.

z z C D. ꝛC H L L X The cucullares *C D* the tendinous origin. *C* part of it ariſing from the occipital bone. *H* the broadeſt part of its tendinous origin about the bottom of the neck and top of the back. *L L* the tendinous part of its end which is inſerted into the ſpine and upper proceſs of the ſcapula, and into the next adjacent part of the clavicle. *X* the tendinous part of its end, by which it is inſerted into the ſpine of the ſcapula not far from its baſis.

P S. P The infraſpinati. *S* the origin of the baſis of the ſcapula.

W Teres minor.

Y Teres major.

O. O A B C D E F The latiſſimi dorſi or broadeſt muſcles of the back. *O* the fleſhy part. A the broad tendon by which it begins. B its adheſion to the gluteus magnus. C its origin from the ſpine of the os ilium. D E F the heads which ariſe from the ribs: D that from the eleventh rib, E that from the tenth, F from the ninth.

G The upper ſerratus anticus.

H I The pectoralis. I the portion which joins it from the aponeuroſes of the external oblique muſcle of the abdomen.

K L M N O P Q R, &c. The lower or great ſerratus. K The head which ariſes from the third rib; L that from the fourth, M from the fifth, N from the ſixth, O from the ſeventh, P from the eighth. R R, &c. the origin of the heads themſelves from the ribs.

S T U V W X Y Z a a a a a b b b b b b c c d d d d e f f g h h h h i i i k The external obliquus of the abdomen. S the fleſhy part. T U V W X Y Z the ſerrated heads, of which T ariſes from the fifth rib, U from the ſixth, V from the ſeventh, W from the eighth, X from the ninth, Y from the tenth, Z from the eleventh. a, &c. the tendinous part of each head at the origin. b b, &c. origin of the heads themſelves from the ribs. c c the inſertion of the fleſhy part into the ſpine of the ilium. d d d d e f f g h h h h i i i k the aponeuroſis or tendinous part, inſerted into the ſpine of the ilium at e, at f f the fleſh of the internal obliquus appears protuberant under it, under the ſame tendon, and that of the internal obliquus at g, the fleſh of the tranſverſalis appears protuberant; and at h h h h the fleſh of the rectus; at i i i appear the tendinous lines of the rectus through the ſaid aponeuroſes and at k, under the ſame appears the pyramidalis.

In the Left lower Extremity.

l The cremaſter muſcle of the teſticle.

m The long adductor of the thigh.

n The pectineus.

o The great pſoas or lumbal muſcal of the left thigh.

p The ſartorius.

q r s The extenſor of the tendinous covering of the thigh. r its origin from the ſpine of the ilium. s its extremity from whence the tendinous part is cut off by which it joins the aponeuroſis or vagina of the thigh.

t u u v The middle gluteus, u u its origin from the os ilium. v the tendon.

w x y The gluteus magnus, ariſing at x from the ſpine of the ilium, and cohering with the latiſſimus dorſi. y the tendon.

z The ſeminervoſus or ſemitendinoſis.

a b b c d e f The biceps muſcle of the leg. *a* its longer head. *b b* its ſhorter head. *c d e f* the tendon, ariſing firſt at *c* from the fleſh of the longer head, afterwards increaſed by the joining of the ſhorter head *d*, and inſerted by its principal end *e*, into the upper head of the fibula, but ſends off the ſmall portion *f*, which belongs to the tibia.

g b i k The external vaſtus. *b* the tendinous ſurface. *i* the tendon, inſerted into the patella at *k*.

l m n o p The rectus of the leg. *m* the tendinous part of its beginning. *n* the tendon, inſerted at *o* into the patella. *p* the aponeuroſis which runs from the tendon of the rectus over the fore part of the patella, and afterwards joins itſelf to the fore part of the ligament, which belongs to the tibia from the patella.

q r The internal vaſtus. *r* the tendon.

ſ t u The ligament belonging to the tibia from the patella. *t* the part where it ariſes from the patella. *u* that whole part which is inſerted behind the tibia.

w x y The outer head of the gemellus or gaſtrocknemius. *x* the tendinous ſurface. *y* the tendon.

z C D The ſoleus. *C* its origin from the upper head of the fibula. *D* the tendinous ſurface.

H L X The tendon of Achillis, *L* the inner part. *X* its inſertion into the calcaneum.

P The tendon of the plantaris.

S W Y O O O The long peroneus. *W* its origin from the head of the fibula, *Y O O O* the tendon ariſing from the fleſh at *Y*.

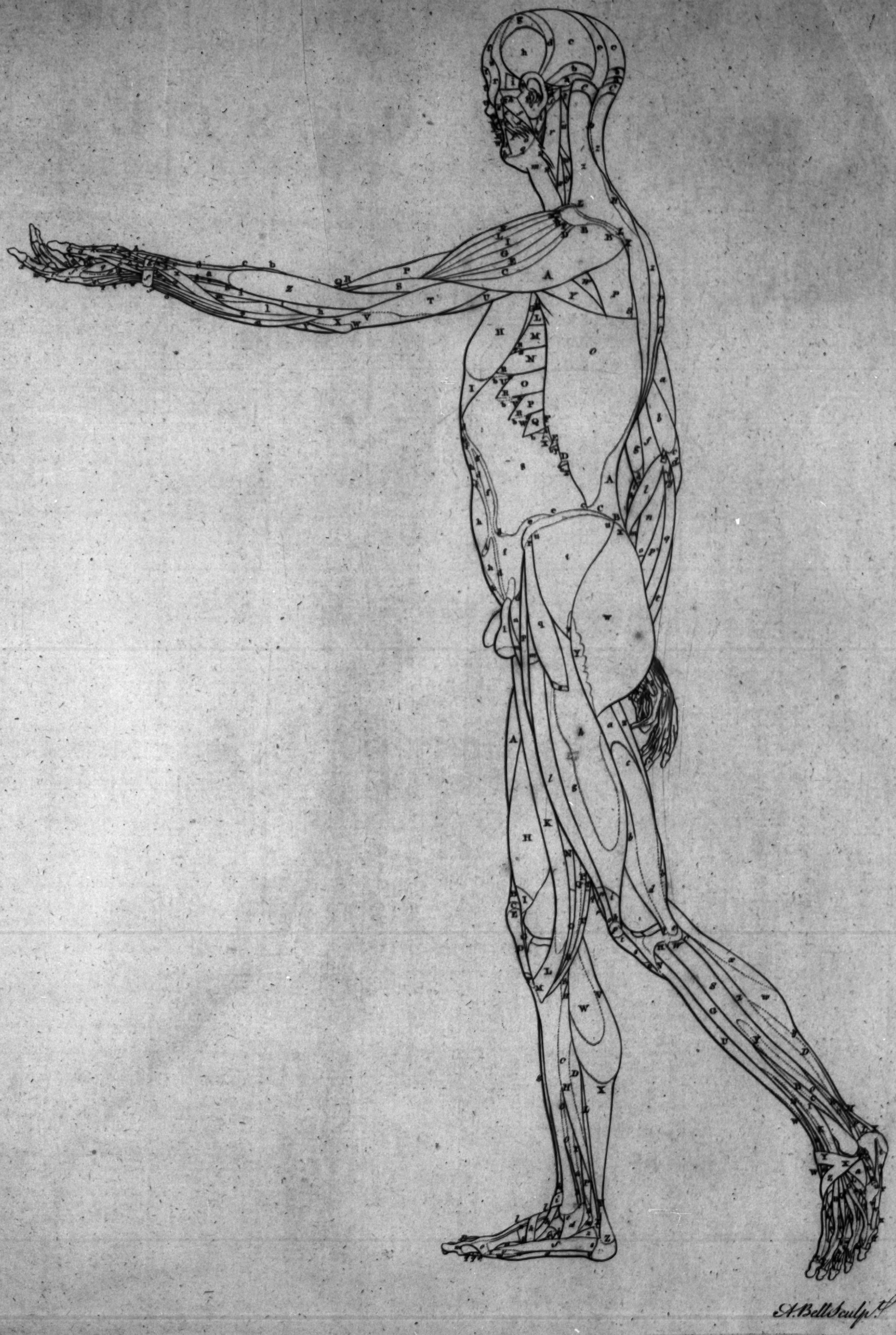
A The ligament proper to the long peroneus.

B B C C D D E The ſhort peroneus. C C the origin of the tendon from the fleſh. D D the tendon, inſerted at E into the fifth bone of the metatarſus.

F The ligament proper to the ſhort peroneus.

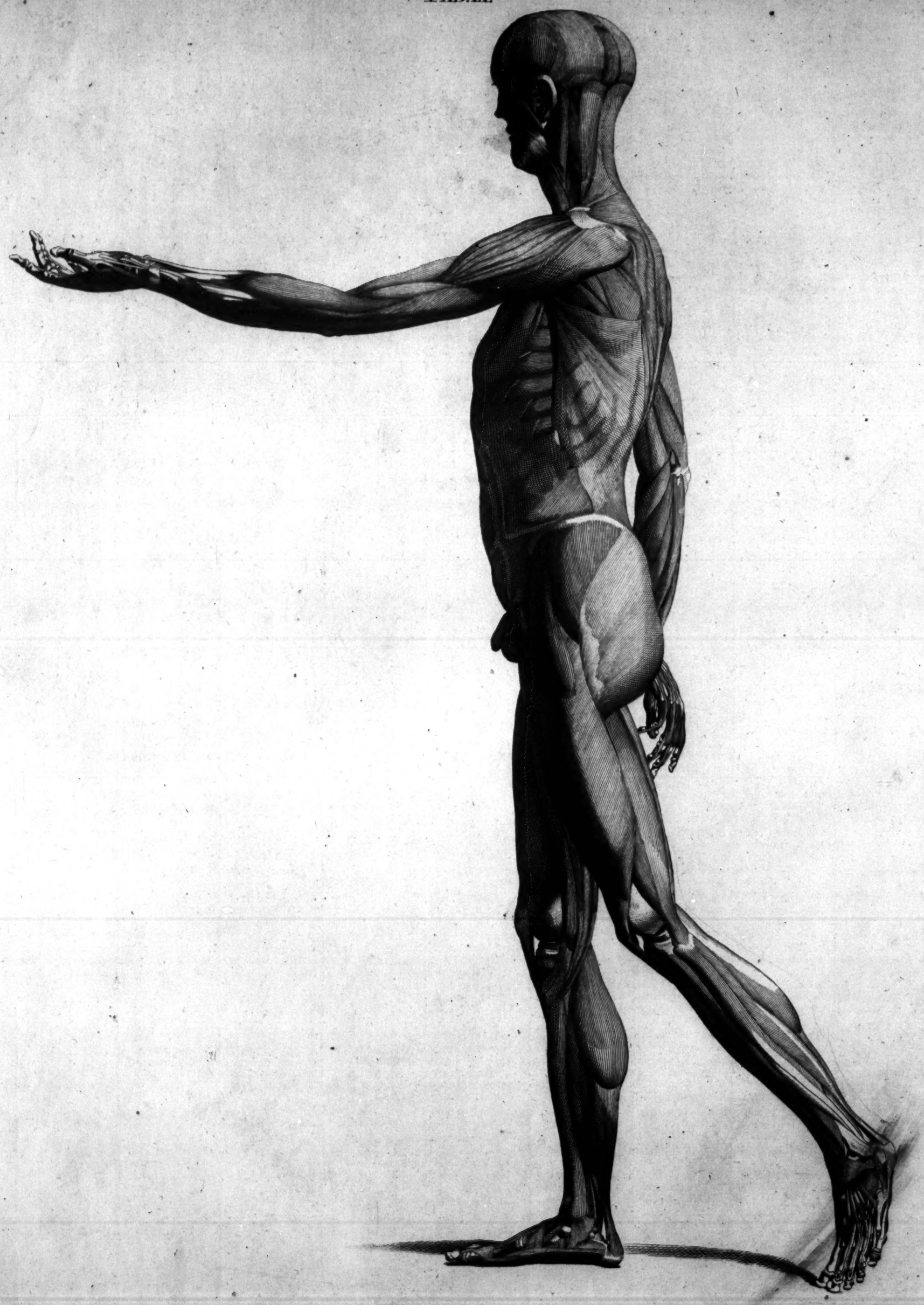
G H I K L M N O P Q R The long extenſor of the toes with the third peroneus. G the common fleſh of the extenſor and peroneus. H its origin from the tibia. I the third peroneus. K L M its tendon, ariſing from the

TAB. IX.



A. Bell Sculp.t

TAB. IX.



fleſh at K, and inſerted at M into the metatarſal bone of the little toe. N the tendon of the long extenſor of the toes, which ſplits itſelf into four tendons O P Q R running over the back or inſtep of the foot.

S S S T The tendon of the proper extenſor of the great toe, inſerted at T into the laſt bone of the great toe.

U V W W The tibialis anticus. V its origin from the tibia. W W its tendon.

X Y Z The ligament by which the tendons are covered and confined at the bottom of the leg, and upon the back of the foot. Y its upper horn. Z the lower horn.

a a a b c d e The ſhort extenſor of the toes. b c d e its tendons. b that belonging to the great toe, c that to the firſt of the ſmall toes, d that to the ſecond, e to the third.

f g h i k l Denote a tendon common to the long and ſhort extenſor of the toes, f the part produced from the longus, g the part from the brevis: and betwixt them is a mark of diviſion. h the end inſerted into the bone of the ſecond phalanx or order. i part of the common tendon running to the third bone. k the tendon running from one ſide to the third bone, which comes from the tendon of the ſhort extenſor. l the common end of the two portions belonging to the third bone into which it is inſerted.

m The aponeuroſis which comes from this ſide to the tendon of the ſhort extenſor of the toes. The like is alſo in the other toes: but in the little toe it joins the tendon of the long extenſor: in the great toe it joins the tendon of its proper extenſor.

n The firſt interoſſeus of the ſecond toe

o The thicker head of the ſecond interoſſeus of the ſecond toe.

p The larger head of the ſecond interoſſeus of the third toe.

q The larger head of the ſecond interoſſeus of the fourth toe.

r s t u v The abductor of the little toe in the part s, covered with an aponeuroſis. t its origin from the calcaneum. u part of the aponeuroſis by which it is covered, inſerted into the metatarſal bone of the little toe. v the tendon of the abductor inſerted into the firſt bone of the little toe.

w x The ſhort flexor of the little toe. w the part which is inſerted into the metatarſal bone of the little toe. x the part which by its tendinous end is inſerted into the firſt bone of the little toe.

y z The tendons of the long and ſhort flexor of the toes. Which are alſo to be ſeen in the next toe.

In the Right lower Extremity.

A B C The rectus muſcle of the leg. B its tendon inſerted into the patella. C the aponeuroſis running from the tendon before the patella, and joining itſelf to the fore part of the ligament that belongs to the tibia from the patella.

D E F G The ligament belonging to the tibia from the patella. E the part where it ariſes from below the patella, and inſerted into the tibia all below the part F. G its inner part.

H I The internal vaſtus. I its tendinous end inſerted into the ſide of the patella.

K L M The ſartorius. L its tendon, inſerted into the tibia at M.

N O The gracilis. O its tendon.

P Q R S The ſemimembranoſus. Q R the tendon, ariſing from the fleſh at Q. S its anterior aponeuroſis inſerted into the inner margin of the tibia.

T U The ſemitendinoſus. U the tendon.

V W X The inner head of the gemellus or gaſtrocnemius. W the tendinous ſurface. X the tendon which joins the outer part of the tendon of the ſoleus. Y the tendon of Achillis, inſerted into the calcaneum at Z.

C D H H The ſoleus. *D* the tendinous ſurface. *H H* its origin from the tibia.

L X The tendon of the plantaris, inſerted into the calcaneum at *X*.

P S The long flexor of the great toe. *S* the tendon.

W The ligament which retains the tendon of the long flexor of the great toe.

T O O a The long flexor of the toes. *O O* its origin from the tibia. *a* the tendon ariſing from its flexor.

b b c The tendon of the tibialis poſticus. *c* its end inſerted into the inner tubercle of the navicular bone.

d e e The ligament that covers the tendon of the long flexor of the toes, and of the tibialis poſticus, faſtened to the inner ancle at *e e*.

f The ligament which retains the tendon of the tibialis poſticus.

g b b b The tibialis anticus. *b b b* the tendon.

i The upper horn of the ligament fixed to the tibia, by which are confined the tendons at the bottom of the leg, and on the back of the foot. *k* the lower horn of the ſame ligament.

l l m The tendon of the extenſor proper to the great toe, inſerted at *m* into the laſt bone of the great toe.

n A branch of the tendon of the proper extenſor of the great toe, inſerted into the firſt bone of that toe, found in ſome bodies.

o An aponeuroſis joining the tendon of the proper extenſor of the great toe.

p The common tendons of the extenſors upon theſe toes.

q q The two horns of the ligament by which the tendon of the long flexor of the great toe is confined in this place.

r The tendon of the long flexor of the great toe running under that toe.

ſ s t The abductor of the great toe. *v* its origin from the calcaneum. *v* the tendon, inſerted at *t* into the firſt bone of the great toe.

u u w The ſhort flexor of the great toe, adjoining itſelf to the tendon of the abductor at *w*.

x y The ſhort flexor of the toes. *y* its origin from the calcaneum

z The fleſhy head that joins the long flexor of the toes in the ſole of the foot, ariſing from the calcaneum.

In the left Arm and Hand.

A B B C D E F G H I K L M N O The deltoides. A B B the ſecond and poſterior of the firſt order of portions which make up this muſcle, ariſing at B B from the ſpine and upper proceſs of the ſcapula. C D the poſterior portion of the ſecond order, ariſing at D from the upper proceſs. E F the fourth portion of the firſt order, ariſing at F from the hollow and arch of the upper proceſs. G H the middle portion of the ſecond order ariſing at H from the upper proceſs. I K the third portion of the firſt order ariſing at K from the upper proceſs. L M the anterior portion of the ſecond order, ariſing at M from the upper proceſs. N O the firſt anterior portion of the firſt order; O its origin from the upper proceſs

P Q R The biceps. Q the tendon. R the aponeuroſis cut off.

S The internal brachialis.

T U V W X The triceps extenſor of the cubit. T that part of it called the longus. U the brevis. V the tendon, inſerted at W into the elbow. X the thinner point of the tendon inſerted into the fore part of the elbow and next adjacent ſpine of the ulna.

Y The internal ulnaris.

Z a The ſupinator longus. a the tendon.

b The pronator teres.

c d The radialis internus. d the tendon.

e e The ſublimis flexor of the fingers.

f f The long flexor of the thumb.

g The tendon of the ſecond longer radialis externus.

h i i i k The longer radialis externus. i i i k the tendon, inſerted at k into the metacarpal bone of the index.

l m m m The ſhorter radialis externus. m m m the tendon.

n o The ulnaris externus. o the tendon.

p q r s t The common extenſor of the fingers. q the tendon belonging to the index. r the tendon to the middle finger: which two tendons near the fingers are conjoined by the portion s, coming from the tendon of the middle finger to the tendon of the index. t the tendon belonging to the ring finger.

u The indicator tendon.

v w The extenſor proper to the little finger. w the tendon.

x y y z z The long abductor of the thumb. y y the tendon of its upper portion, which is ſplit at the end, of which one part belongs to the ſhort abductor of the thumb, the other to the metacarpal bone of the thumb. z z the tendon of its lower portion

a b The leſs extenſor of the thumb. *b* the tendon.

c c The tendon of the larger extenſor of the thumb.

d e The tendon common to the larger and leſs extenſor of the thumb, belonging to the laſt bone of the thumb *e*.

f f The outer circular ligament of the wriſt.

g The ligament by which are confined the tendons of the long abductor and leſs extenſor of the thumb.

The inner ligament of the wriſt

i k The ſhort abductor of the thumb. *k* the aponeuroſis which it joins to the common tendon of the extenſors of the thumb.

l The opponent muſcle of the thumb, inſerted into the outer edge of the metacarpal bone of the thumb.

m The aponeuroſis which joins the tendon of the larger extenſor of the thumb, ariſing partly from the capſule of the joint of the thumb with its metacarpal bone, and in part from the ſhort flexor of the thumb.

n o The adductor of the thumb, inſerted by its tendinous end *o* into the firſt bone of the thumb.

p The outer interoſſeus muſcle of the index, ariſing from its metacarpal bone.

q The abductor of the index.

r The firſt lumbricalis.

ſ The aponeuroſis which proceeds partly from the abductor of the index, and in part from its lumbricalis, and joins the tendon of the extenſors of the index.

s v The tendon common to the extenſors of the index. *v* its end inſerted into the ſecond bone of the index.

t The tendon of the firſt lumbricalis, which being increaſed by a portion received from the common tendon of the extenſors, runs to the third bone of the index *u*.

w The tendon of the ſecond interoſſeus of the index, together with a portion which it receives from the common tendon of the extenſors running to the third bone of the index.

x The common end of the tendons *u* and *w* belonging to the third bone of the index into which it is inſerted.

y The tendon common to the ſecond lumbricalis and outer interoſſeus of the middle finger: which tendon being increaſed by a portion received from the extenſor tendon of the middle finger, runs to the third bone of that finger, joining in its common end with a like tendon from the other finger of this ſide, and is inſerted into the third bone of the ſaid finger.

z The tendon common to the fourth lumbricalis with the outer interoſſeus of the little finger: which tendon being increaſed by a portion received from the extenſor tendon of this finger, runs to its third bone.

Along the fingers within the hand run the tendons of the ſublimis and profundus flexors, which tendons are retained or tied down by their ligaments, as may be better ſeen in Tab. I.

In the Right Arm.

a b c d e The triceps extenſor of the elbow or fore-arm, *a* the part called extenſor longus. *b* the part called brachialis externus. *c* the tendon of the triceps, inſerted into the olecranum or elbow. *e* the thin tendon ariſing from the ſurface of the external brachialis, and belonging to the upper part of the poſterior or larger condyle of the humerus.

f The brachialis internus.

g b i The biceps flexor of the fore-arm. *b* its aponeuroſis cut off. Near *i* appears the tendon.

k The ſupinator longus.

l The pronator teres.

m The radialis internus.

n o The long palmaris. Immediately below *o* appears the beginning of its tendon.

p The ſublimis perforatus flexor of the fingers,

In the Right Hand.

q r s The ulnaris internus. r one of its origins from the posterior condyle of the humerus. s its other origin from the elbow.
t The ulnaris externus.
a The short abductor of the thumb. b the aponeurosis which going off from its tendon, joins itself to the common tendon of the extensors of the thumb.
c Part of the short flexor of the thumb, which may be reckoned as a second short abductor of it, inserted by its tendinous end into the first bone of the thumb.
d Part of the short flexor of the thumb, inserted into the sesamoidal bone nearest the index, and into the next part of the first bone of the thumb.
e The abductor of the thumb.
f f The tendon of the long flexor of the thumb.
g Two ligaments which confine the tendon of the long flexor of the thumb marked *m* in the left hand of Tab. V.
h The palmaris brevis quadratus.
i The short flexor of the little finger.
k The abductor of the little finger.
l The abductor of the fourth metacarpal bone of the hand, inserted into that bone.

Finally, we have omitted to fix letters on the tendons and aponeuroses stretched over the back of the hand and fingers, because they may be more easily known from the fifth table.

THE

Tenth Anatomical Table

OF THE

HUMAN MUSCLES

EXPLAINED.

FIGURE I.

COMES next after that of the head and neck in the ninth table; and represents the muscles seated before the vertebrae of the neck, below the head, with the os hyoides, larynx, and part of the pharynx; to shew which the latissimus colli and mastoideus are here taken off. No other muscles are here figured either in the head or vertebræ; not even those which adhere to the fore part of the vertebræ behind the pharynx, as the rectus internus, major capitis, and longus colli, lest by these the other muscles should be obscured.

a The pterygoideus externus.
b c Pterygoideus internus, c its insertion into the lower jaw.
d The mylohyoideus, the end of which, inserted into the basis of the os hyoides, appears immediately below the tendon of the digastric i of the lower jaw.
e f The stylohyoideus inserted by its tendon f into the basis of the os hyoides.
g h i i The digastric of the lower jaw. g the first venter, h its second venter, i i the middle tendon.
k l The basioglossus. l part of its origin from the horn of the os hyoides: and immediately above k appears part of the styloglossus, as in Fig. 2. m.
m The ceratoglossus arising from the horn of the os hyoides.
n o The os hyoides. n the horn, o its basis.
p The common end of the stylopharyngeus and palatopharyngeus. Part of the end of which also lies betwixt the ceratoglossus and heads of the middle constrictor of the pharynx: for which consult the figures following.
Near p is a ligament belonging to the upper process of the thyroide cartilage from the horn of the hyoidal bone. See Fig. 4. x.
q r s t The hyothyroideus. r s its origin, from the horn r of the hyoidal bone, and from its basis s. t its thyroidal insertion.
u The thyroide cartilage.
v w x y The cricothyroideus. v its fore part inserted into the thyroide cartilage. w x y its back part, of which a portion at x joins the lower constrictor of the pharynx. y its thyroidal insertion.
z The cricoide cartilage.
a The gula cut off.
b c The lower constrictor of the pharynx. c its origin from the cricoide cartilage.
d e f The middle constrictor of the pharynx. e the head which arises from the graniform bone of the os hyoides. f the head which arises from the end of the horn of the os hyoides.
g The upper constrictor of the pharynx.

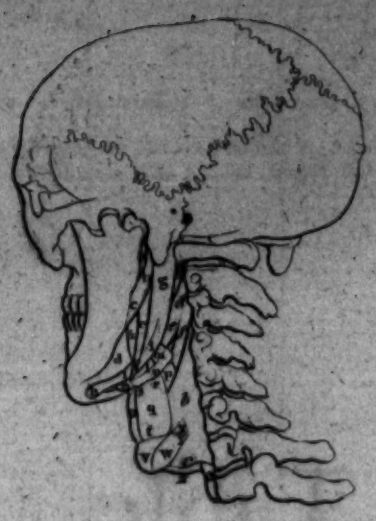
FIGURE II.

In which the outer muscles of the first figure and left side of the lower jaw are taken off, represents the next order of muscles, with the os hyoides, larynx, gula, and tongue. But with the left side of the lower jaw are removed the pterygoideus, externus and internus, the mylohyoideus, stylohyoideus, biventer maxillæ, hyothyroideus and cricothyroideus.

a The upper jaw-bone.
b The outer wing of the pterygoidal process.
c d Part of the palate bone, which being inserted betwixt the pterygoidal process and upper jaw, connects them together. c part of it belonging to the cavity of the pterygoidal process.
e e The inner wing of the pterygoidal process, in whose bottom is the hamulus or hooked process.
f The circumflex muscle of the moveable palate.
g The elevator of the moving palate.
h The tongue.
Near i is the constrictor of the isthmus of the fauces. See Fig. 4. l.
k l m The styloglossus. l its continuation to the ceratoglossus. m its course from thence as it runs in the direction of the tongue, and is inserted into it.
n The ceratoglossus arising from the horn of the os hyoides.
o The basioglossus, whose origin appears from the horn of the os hyoides.
p The lingualis.
q The genioglossus arising from the lower jaw.
r s Geniohyoideus. s its tendinous origin from the lower jaw. The rest of it is inserted into the basis and horn of the os hyoides: also part of its end runs behind the basioglossus.
t The lower jaw cut in two.
u v The os hyoides. u the basis. v the horn.
Near the lower part of the end of the horn of the os hyoides is part of the ligament which goes from thence to the upper process of the thyroide cartilage. See Fig. 4. x.
w The stylopharyngeus.
x The common end of the stylopharyngeus and palatopharyngeus, the extremity of which appears betwixt the ceratoglossus and two heads of the middle constrictor of the pharynx. See Fig. 4. g.
y y z The upper constrictor of the pharynx. z a portion of it which arises partly from the lower jaw, and is in part continued to the buccinator; from both which it is cut off.
a b c The middle constrictor of the pharynx. b the head which arises from the little grain-like bone of the os hyoides. c the head which arises from the end of the horn of the os hyoides.
d e f g b The lower constrictor of the pharynx. e f g the head by which it arises from the thyroide cartilage, from e to f, springing from the side of the said cartilage, the part f from the lower edge thereof, and the part g from the lower process. b the head by which it arises from the annular cartilage.
i k The thyroide cartilage. k the protuberance from whence arises the middle constrictor of the pharynx.
l A ligament tying the annular to the thyroide cartilage.
m The annular cartilage.
n The gula cut off.

TAB. X.

I.



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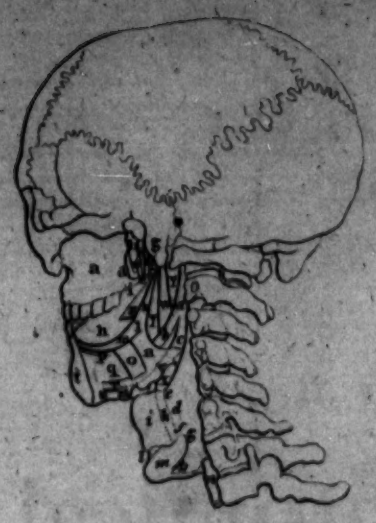

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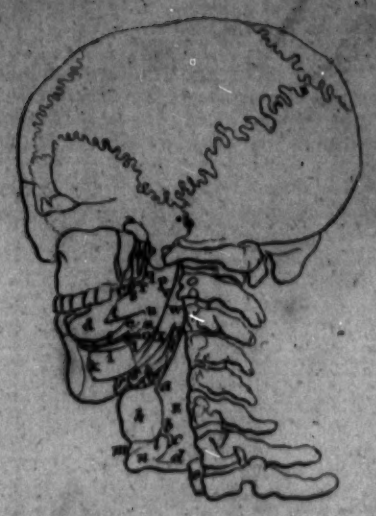

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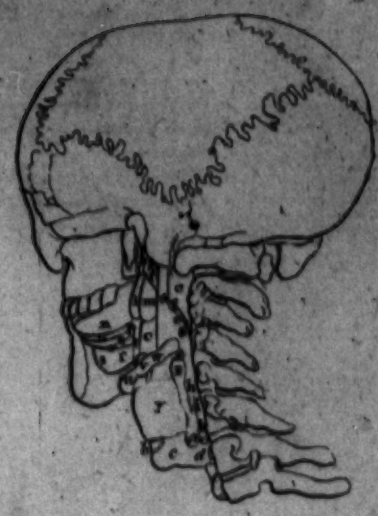

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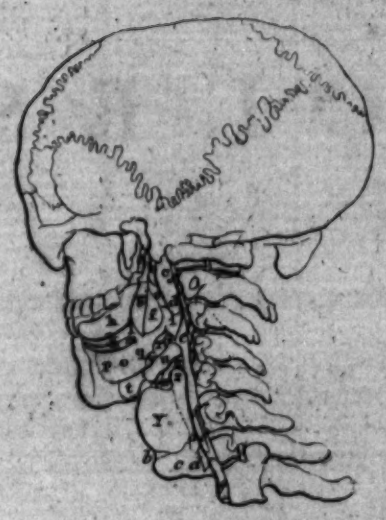
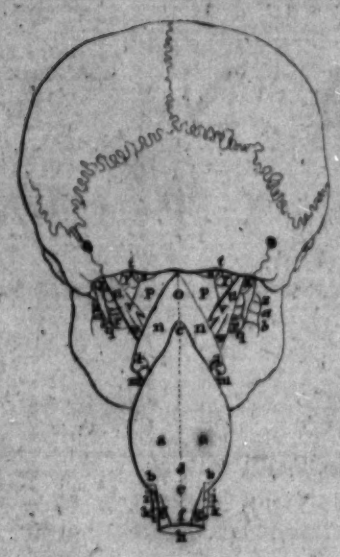


VI.

VII.

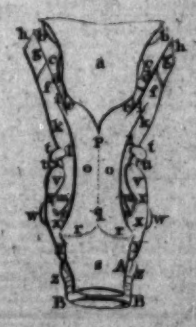
VIII.



IX.

X.

XI.



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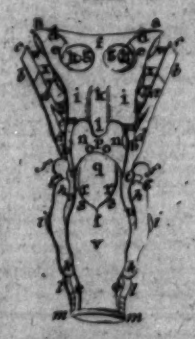

XIII.

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XV.

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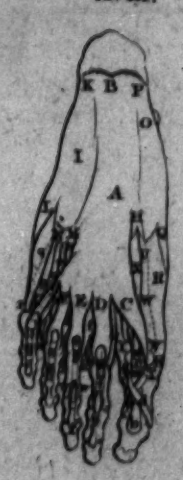

XIX.

XX.

XXI.

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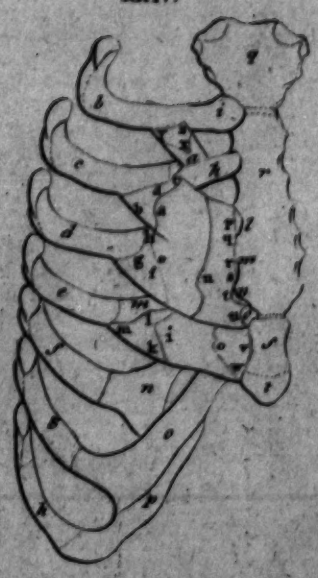

A Bell Sculp.

TAB. X.

I.

II.

III.

IV.

V.

VI.

VII.

VIII.

IX.

X.

XI.

XII.

XIII.

XIV.

XV.

XVI.

XVII.

XVIII.

XIX.

XX.

XXI.

XXII.

XXIII.

XXIV.

A. Bell Sculpt.

FIGURE III.

Repreſents the next order of muſcles after thoſe which lie outermoſt in the preceding figure are taken off; namely, the ſtylogloſſus, ceratogloſſus, baſiogloſſus, geniohyoideus, and ſtylopharyngeus.

The upper jaw bone, with the proceſſus pterygoideus, its wings, hook, and excavations, as alſo the palate-bone with the lower jaw divided, have neither of them any letters affixed in the preſent, or two next ſucceeding figures; becauſe theſe may be known from the ſecond figure, and therefore there is no reaſon for loading theſe laſt figures with the former.

a The circumflex muſcle of the moveable palate.
b The elevator of the ſoft or moveable palate.
Near c is part of the conſtrictor of the iſthmus of the fauces. See Fig. 4. l.
d The tongue.
e f The ſtylogloſſus, cut off at e, but in the part f, running according to the length of the tongue, and cohering with it.
g The ceratogloſſus and baſiogloſſus cut off.
h The lingualis.
i k l m n o The geniogloſſus. k its origin from the lower jaw. At l the thin faſciculi of fibres are incurvated by the ſide of the pharynx; ſome of which fibres at m join the ceratogloſſus and ſtylogloſſus; others at n join the upper conſtrictor of the pharynx, while others at o vaniſh in the membrane of the pharynx.
p q r s t u The upper conſtrictor of the pharynx. q the upper part which goes out of the circumflex muſcle of the moveable palate. r the part which ariſes from the internal plate of the pterygoide proceſs, and from the hook.
s the part which is cut off from the buccinator. t the part which ariſes from the lower jaw. u the part going from the tongue: below which the part n joins it from the fibres of the geniogloſſus, which it incurvates through the ſide of the pharynx.
v Denotes a ſpace betwixt the upper and middle conſtrictor, thro' which the ſtylopharyngeus is detached, paſſing under the middle conſtrictor.
w x y The middle conſtrictor of the pharynx. x one of the heads ariſing from the ſmall grain-like bone of the os hyoides: y the other head ariſing from the end of the horn of the os hyoides.
z *a b c d* The lower conſtrictor of the pharynx. *a b c* the head which ariſes from the thyroide cartilage: *a* and *b* denote its origin from the ſide of the thyroide cartilage, *b* from the lower edge of the ſaid cartilage, and *c* from the lower proceſs. *d* the head ariſing from the annular cartilage.
e The common end of the ſtylopharyngeus and palatopharyngeus: part of which appears betwixt the heads of the middle conſtrictor of the pharynx x. y: See Fig. 4 g.
f g b The os hyoides. *f* the baſis. *g* the grain-like little bone, *b* the horn.
A little above *g* is a ſmall part of the chondrogloſſus muſcle. See Fig. 4. t.
A little below *i* is a ligament which belongs to the upper proceſs of the thyroide cartilage from the end of the horn of the os hyoides See Fig. 4. x.
k The thyroide cartilage, whoſe lower proceſs is near *l*. See *a*.
m The ligament by which the thyroide and cricoide cartilage are tied one to the other.
n The cricoide cartilage.
o The gula cut off.

FIGURE IV.

The outermoſt muſcles of the third figure being removed, we here exhibit the next order, together with the tongue, os hyoides, larynx, pharynx, or beginning of the gula, alſo one of the tonſils, and the membrane of the fauces laid bare altogether. But we have here added the beginning of the ſtylopharyngeus, that this muſcle might appear entire. In this figure are removed part of the geniogloſſus that is incurvated by the ſide of the pharynx; alſo the upper, middle, and lower conſtrictor of the pharynx.

a The circumflex muſcle of the moveable palate.
b The elevator of the palate.
c c c The membrane of the pharynx naked.
d e The ſtylopharyngeus. e that part of it which joins itſelf to the upper part of the palatopharyngeus. See i. Fig. 2.
f f The palatopharyngeus.
g g h i k the common end of the ſtylopharyngeus and palatopharyngeus. h part of it which is inſerted into the external ſide of the edge of the thyroide cartilage, at the root of the upper proceſs. i k another part, which at i is inſerted into the remaining edge, and at k diſappearing below in the membrane of the pharynx.
l The conſtrictor of the iſthmus of the fauces.
m The tonſil.
n The tongue.
o p The ſtylogloſſus where it joins the tongue, cut off at p. See Fig. 2. k m.
q The baſiogloſſus and ceratogloſſus cut off.
r The lingualis.
s s The geniogloſſus. s its origin from the lower jaw. The contexture of fibres, incurvated by the ſide of the pharynx, is here removed, l. Fig. 3.
t The chondrogloſſus ariſing from the grain-like bone of the os hyoides.
u v w The os hyoides. u the baſis, above v appears the ſmall grain-like bone, w the horn.
x The ligament which belongs to the upper proceſs of the thyroide cartilage from the end of the horn of the os hyoides.
y z *a* The thyroide cartilage. z its upper proceſs, *a* its lower proceſs.
b The ligament by which the ſcutiform and annular cartilage are faſtened together in this place.
c The annular cartilage.
Near *d* is the poſterior cricoarytaenoideus muſcle. See a Fig. 6.
e The gula cut off.

FIGURE V.

In this figure are taken away, not only ſome of the outer muſcles of the fourth figure, but alſo the pharynx is ſlit longitudinally, laid open, and the left part of it cut off, that not only the cavity thereof, but alſo the moveable palate, with the root of the tongue and epiglottis, might appear. The muſcles taken off are the ſtylopharyngeus and palatopharyngeus, with its common extremity, and the chondrogloſſus.

a The circumflex muſcle of the moveable or ſoft palate.
b The elevator of the palate.
c The moveable palate. d the uvula. e the edge of the ſoft palate cut off.
f The tonſil.
g The conſtrictor of the iſthmus of the fauces.
h i The tongue. h the part which is contained in the mouth. i the part where it is incurvated within the fauces towards the baſis of the tongue and os hyoides.
k l The ſtylogloſſus muſcle cut off at l.
m The baſiogloſſus and ceratogloſſus cut off.
n The lingualis.
o p q The geniogloſſus. p its origin from the lower jaw. q the part which belongs to the tongue.
r r s The epiglottis. r r the convex part, s the concave part.
t u v The os hyoides. t the baſis. u the horn. v the ſmall grain-like bone.
w The inner membrane of the larynx.
x The ligament belonging to the upper proceſs of the thyroide cartilage from the end of the horn of the os hyoides.
y z *a* The thyroide cartilage. z The upper proceſs, *a* the lower proceſs.
b The ligament by which the ſcutiform and annular cartilage are tied one to the other.
c The annular cartilage.
Near *d* is the poſterior cricoarytaenoideus. See Fig. 6. a.
e e The cavity of the pharynx laid open.
f f The membrane of the pharynx cut open.
g The gula cut off.

FIGURE VI.

This figure follows after that of the larynx contained in the figure laſt preceding. The left ſide of the thyroide cartilage being cut off, the remainder repreſents the larynx, with the muſcles which lie next under the ſide of the thyroide cartilage, as alſo thoſe which are ſeated in the back part of the larynx.

We have not fixed letters on the ſcutiform and annular cartilage, with the epiglottis, poſterior angle of the baſis of the left arytenoide, and the ſmall heads of the arytenoide cartilages; becauſe theſe may be better known or underſtood from the ſeventh figure.
a The poſterior cricoarytænoideus, ariſing from the annular cartilage, and inſerted into the arytenoide.
b The lateral cricoarytænoideus, ariſing from the upper margin of the cricoide cartilage.
c d The faſciculus, ariſing from the inner and upper part of the thyroide cartilage, not far from its notch or fiſſure, and inſerted into the baſis of the arytenoide cartilage. d the beginning cut off from the thyroide cartilage.
e The thyro-arytenoideus muſcle, ariſing in one part from the thyroide cartilage, and in the other from the ligament by which the annular and thyroide cartilage are tied together.
f g h A thin contexture of fleſhy fibres, which ariſing from the thyroide cartilage near the outer part of the origin of the thyro-arytenoideus, aſcends by the outer part f of the ſaid muſcle behind g, by the ſide of the glottis and epiglottis h.
i The depreſſor of the epiglottis.
k The ligament by which the annular and thyroide cartilage are tied one to the other.
l The left oblique arytenoideus muſcle.
m m n The right oblique arytenoideus, n that part of it which goes by the margin of the glottis to the epiglottis; and the other part, near and betwixt n m, is continued on to the thyro-arytenoideus.
o The tranſverſe arytenoideus.
p The membrane which forms the lateral part of the glottis, extended from the little head of the arytenoide cartilage to the upper part of the epiglottis.

FIGURE VII.

Repreſents the ſame contexture of the cartilages of the larynx as the preceding figure, but wholly naked or freed from the muſcles and membranes.

a b c The inner ſide of the right half of the thyroide cartilage. b the left half, which is here cut off and removed. c the upper proceſs.
d e The cricoide cartilage. e the tubercle to which is tied the lower proceſs of the thyroide cartilage.

f g h The arytenoide cartilages. g h the baſis; g the baſis of the poſterior angle, projecting like a tubercle; h the anterior angle of the baſis, hollow in this part.
i The ſmall heads added to the arytenoide cartilages.
k l m n The epiglottis. k the back. l the concave part. m a round body projecting like a ligament in the concave part of the epiglottis, and ariſing from the inner part of the thyroide cartilage, below its fiſſure.

FIGURE VIII.

Repreſents the firſt order of the muſcles which are ſeated round the larynx, as they appear viewed on the back part. To ſhew theſe muſcles more diſtinctly, we have added not only the pharynx, and part of the gula, which is continued to it, but alſo the os hyoides, larynx, and part of the wind-pipe; likewiſe the naked bones of the head, to which the pharynx is connected.

We have not here added a full explanation of the bones or parts of the ſcull, becauſe they may be better underſtood from the tables which I have prepared, wherein the figures of the bones are expreſſed in their natural magnitude.
a b. a b c d e The lower conſtrictors of the pharynx. b the origin from the cricoide cartilage. c the point in which they terminate above, from c to d the fibres running together form an angle. e the part where the right fibres are continued to the left in a curved direction.
f The inner tranſverſe fibres of the gula in this place laid bare. g g the outer fibres deſcending obliquely backwards on each ſide.
h The gula cut off.
Juſt above i i is the annular cartilage. See Fig. 14. *i k k*.
k k The wind-pipe cut off.
l l The ends of the horns of the os hyoides.
m m The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides. See Fig. 9. B. B.
n. n o The middle conſtrictors of the pharynx. o the part where the fibres meet together in angles.
p q r. p q r The upper conſtrictors of the pharynx. q the origin from the lower jaw near the innermoſt of the grinding teeth. r the part where it is cut off from the buccinator.
s s The naked membrane of the pharynx.
Juſt below t t is the circumflex muſcle of the moveable palate.
u v w. u v w The ſtylopharyngei muſcles. v the upper and leſs part. w the lower and larger part.
x x the ſtyloide proceſſes of the temporal bones. See Fig. 9. m. m.
y y The pterygoide proceſſes of the multiform bone.
z z The upper jaw bone, where it forms the gums above the innermoſt of the grinding teeth.
a a The innermoſt of the upper grinders, which are the fifth in order.
b b The fifth of the lower grinding teeth.

FIGURE IX.

Exhibits the next view after the lower conſtrictor of the pharynx is taken off. But we have not added the bones of the head, that the upper parts of the pharynx might not be obſcured, and becauſe the manner in which the pharynx adheres to the bones of the head may be underſtood from the figure laſt preceding. But the ſtyloide proceſſes are added, to ſhew the origin of the ſtylopharyngei.

a. a b c The middle conſtrictors of the pharynx. b the upper point in which they meet. c the lower point. From b to c the fibres converge angularly.
d e f. d e f The upper conſtrictors of the pharynx. At e cut off from the buccinator. f the part which ariſes from the lower jaw.
g h h i i i The naked membrane of the pharynx, in which is a ſinuoſity at h h near the protuberant ends of the larger internal recti muſcles of the head. i i i the parts where it is cut off from the baſis of the cranium round the upper part of the Euſtachian tubes and internal foramina of the noſtrils.
k k The elevators of the moveable palate. See Fig. 13. and 14. g. g.
l l The circumflex muſcle of the moveable palate. See Fig. 14. n. n. and 15. h. h.
m n. m n The ſtyloide proceſſes of the temporal bones cut off at their roots n n.
o p q r. o p q r The ſtylopharyngei. p the tendinous beginning ariſing from the ſtyloide proceſs. q the lower and larger part. r the upper and leſs part.
s. s t u v v Parts of the common ends of the ſtylopharyngei, and palatopharyngei, ariſing principally from the palatopharyngei, and in this place, from t to u, the fibres meet together, or run one betwixt the other, in the part from u to v, vaniſhing on the back ſide of the membrane of the pharynx; at v inſerted into the thyroide cartilage.
w x y. w x y Parts of the common ends of the ſtylopharyngei and palatopharyngei, which ariſe chiefly from the ſtylopharyngei. x a portion of them inſerted into the outer ſide of the edge of the thyroide cartilage to the root of the upper proceſs. y the portion inſerted into the remaining part of the margin of ſaid cartilage down to the root of the lower proceſs.
z The naked membrane of the lower part of the pharynx which is continued to the gula.
A A The ends of the horns of the os hyoides.
B B The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides.
C C D D E E F F The thyroide cartilage. C C the upper proceſſes. D D the tubercles which are in the outer ſides at the roots of the upper proceſſes. E E the poſterior edges. F F the lower proceſſes.
G G The annular cartilage. H H the wind-pipe cut off.
I The poſterior cricoarytaenoideus. In the other ſide may be perceived the left.

FIGURE X.

Repreſents the next view of the muſcles after the middle conſtrictor of the pharynx is taken off. Alſo, we did not think the ſtyloide proceſſes neceſſary to be added in this figure, becauſe they are in the ninth preceding.

a b c d e e. a b c d e e f g The upper conſtrictors of the pharynx. a the lower part which croſſes the upper part b. c d the portion that is partly cut off from the buccinator at c, and in part ariſes from the lower jaw at d. e e portions which paſs betwixt the upper and lower part of the ſtylopharyngeus, and come hither through the upper part. f the upper tip or point in which the right and left of theſe conſtrictors meet together. From f to g the fibres of both of them meet in angles.
h The naked membrane of the pharynx, as in Fig. 9. g h h i i i.
i i The elevators of the ſoft or moveable palate. See Fig. 13. and 14. g g.
k k The circumflex muſcle of the palate. See Fig. 14. n n. and Fig. 15. h h.
l m n o p. l m n o p The ſtylopharyngei. m the tendinous beginning. n the part cut off from the ſtyloide proceſs. o the upper and leſs part that forms two faſciculi, which both of them paſs ſeparately under the fibres of the upper conſtrictor. p the lower and larger part.
q r s. q r s Parts of the common ends of the ſtylopharyngei and palatopharyngei, which are produced from the ſtylopharyngei. r the portion inſerted into the outer ſide of the edge of the thyroide cartilage, at the root of the upper proceſs. s the portion inſerted into the ſubſequent part of the edge, down to the root of the lower proceſs.
t. t u v w Parts of the common ends of the ſtylopharyngei and palatopharyngei, whoſe fibres run together from u to v; from v w the fibres vaniſh in the back part of the membrane of the pharynx, and at w they are inſerted into the thyroide cartilage.
x The naked membrane of the lower part of the pharynx, which is continued to part of the gula.
y y The ends of the horns of the os hyoides.
z z The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides.
a a b b c c d d The thyroide cartilage. *a a* the upper proceſſes. *b b* the protuberances in the outer ſides at the roots of the upper proceſſes. *c c* the poſterior edges. *d d* the lower proceſſes.
e e The annular cartilage.
f f The wind-pipe cut off.
g The poſterior cricoarytaenoideus. The left is alſo repreſented.

FIGURE XI.

Repreſents the next face of the muſcles after the upper conſtrictor of the pharynx is taken off.

a The naked membrane of the pharynx. See Fig. 9. h h i i i.
b b The elevators of the moveable palate. See fig. 13. and 14. g. g.
c c The circumflex muſcle of the ſoft palate. See Fig. 14. n n. and 15. h h.
d d The ſmall hooks of the pterygoide proceſſes. See Fig. 16. p. p.
e e The palatopharyngei.
f g h i k. f g h i k The ſtylopharyngei. g the tendinous beginning. h the part where it is cut off from the ſtyloide proceſs. i the upper and leſs part. k the lower and larger part.
l m n. l m n Parts of the common ends of the ſtylopharyngei and palatopharyngei, which ariſe from the ſtylopharyngei. m a portion of them inſerted into the outer ſide of the edge of the thyroide cartilage at the root of the upper proceſs. n the portion which is inſerted into the ſubſequent part of the margin down to the root of the lower proceſs.
o. o p q r Parts of the common ends of the ſtylopharyngei and palatopharyngei, the fibres of which, from p to q, run together; from q to r they vaniſh in the back part of the membrane of the pharynx, and at r they are inſerted into the thyroide cartilage.
s The naked membrane of the lower part of the pharynx, to which is continued part of the gula.
t t The ends of the horns of the os hyoides.
u u The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides.
v v w w x x y y The thyroide cartilage. v v the upper proceſſes. w w the tubercles which are in the outer ſides, at the roots of the upper proceſſes. x x the poſterior edges. y y the lower proceſſes.
z z The annular cartilage.
A The cricoarytaenoideus poſticus, which is alſo repreſented in the left ſide.
B B The wind-pipe cut off.

FIGURE XII.

Exhibits the internal ſurface of the pharynx entire, as it appears after the whole back part of the pharynx, and adjacent gula, are cut off longitudinally on each ſide, and removed. This figure we have added to render the four following more intelligible.

a a b b c c The edges, from whence is cut off the back part of the pharynx and gula.

d e. d e The Euſtachian tubes jetting out. e e the orifices by which they open laterally into the poſterior foramina of the noſtrils.
f The ſeptum of the noſtrils.
g g The cavity of the noſtrils, in which are ſeated the lower oſſa ſpongioſa h h, covered with the mucous membrane.
i i k l The ſoft palate and uvula. k the part where the body of the uvula is protuberant. l the pendulous part of the uvula.
m m The poſterior arches which deſcend laterally from the ſoft palate thro' the ſides of the pharynx.
n n The tonſils, prominent beyond the poſterior arches.
o o p The tongue. p the middle foſſula or cavity upon which the uvula is incumbent.
q The epiglottis.
r r The membranous ſides of the glottis.
s s The protuberance of the ſmall heads which lie upon the arytenoide cartilages.
Betwixt q r r s s is included the glottis.
t The rima or ſlit of the glottis.
t That which is called the lateral ligament of the epiglottis, where part of it belongs to the ſide of the epiglottis, under the inveſting membrane and common end of the ſtylopharyngeus and palatopharyngeus. The ſame is alſo in the left ſide.
u u concavities at the ſides of the tube of the larynx, ſeated betwixt that and the thyroide cartilage.
v The back part of the tube of the larynx projecting within the pharynx.
w w The elevators of the ſoft palate See Fig. 13. and 14. g g.
x x The circumflex muſcle of the ſoft palate. See Fig. 14. n n. and 15. h h.
y y The ſmall hooks of the pterygoide proceſſes. See Fig. 16. p p.
z z The palatopharyngei cut off.
w b c d e. a b c a e The ſtylopharyngei. *b* the tendinous beginning cut off at *c* from the ſtyloide proceſs. *d* the lower and larger part. *e* the upper and leſs part.
f f The ends of the horns of the os hyoides.
g g The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides.
h h i i k k The thyroide cartilage. *h h* the upper proceſſes. *i i* the tubercles which are ſeated in the outer ſides at the roots of the upper proceſſes. *k k* the lower proceſſes.
l l The annular cartilage.
m m The wind-pipe cut off.
Here are alſo repreſented parts of the cricoarytenoidei poſtici, which may be underſtood from Fig XI. laſt preceding.

FIGURE XIII.

Repreſents thoſe muſcles which lie immediately under the membrane that covers the parts expreſſed in the fourth and tenth figure; which membrane is here removed. The beginning of the gula and wind-pipe are alſo taken away, as they are not here neceſſary.

a a The place where the back part of the pharynx is cut off.
b c. b c The Euſtachian tubes, as yet covered with their membrane which lines the inſide of the fauces.
c c The orifices by which they open at the ſides of the poſterior foramina of the noſtrils.
d d the cavities of the noſtrils.
e e The lower oſſa ſpongioſa covered with the mucous membrane.
f The ſeptum or partition of the noſtrils.
g h i. g h i The elevators of the ſoft or moveable palate. h the tendinous part of the beginning, i the lower part of it, forming a diſtinct portion.
k k The circumflex muſcle of the ſoft or moveable palate. See Fig. 15. h h.
l l The ſmall hooks of the pterygoide proceſſes. See Fig. 16. p p.
m The azygus or ſingle muſcle of the uvula, from its beginning interwove with the tendinous ends of the elevators of the ſoft palate, and with the tendinous membrane, which coming from the noſe, paſſes through the upper part of the ſoft palate, m Fig. 14.
n o p. n o p The palatopharyngei. n the part which goes through the ſoft palate above the elevator of the ſaid palate, and paſſing out at o from the tendinous membrane, which coming from the noſe, paſſes through the upper part of the ſoft palate, m Fig. 14. p. the part which afterwards paſſes under the elevator of the palate.
q q The ſalpingopharyngei joining to the palatopharyngei.
r s t u v. r s t u v The ſtylopharyngei. s the tendinous beginning, t the part where it is cut off from the ſtyloide proceſs. u the upper and leſs part of the ſtylopharyngeus, v the lower and larger part.
w w Parts of the common ends of the palatopharyngei, ſalpingopharyngei, and ſtylopharyngei, which deſcend through the ſides of the pharynx, are protuberant within the ſame, and form the poſterior arches which deſcend along the ſides of the fauces from the ſoft palate.
x y. x y Parts of the common ends of the ſtylopharyngei and palatopharyngei produced from the ſtylopharyngei; of which the part x runs inward through the lateral ligament of the epiglottis, near the lateral margin or edge of the epiglottis; the part y is inſerted into the upper edge of the thyroide cartilage betwixt its upper proceſs and the epiglottis.
z z The poſterior edges of the ſoft or moveable palate.
a The uvula.
b b The tonſils, which are protuberant beyond the palatopharyngei muſcles.
c The tongue.
d The epiglottis.
e e The membranous ſides of the glottis.
f f The ſmall heads which are added to the arytenoide cartilages.
g g The oblique arytenoidei muſcles which have two terminations, one upper, running through the membranous ſides of the glottis to the epiglottis; the other lower, which continues itſelf to the thyro-arytenoideus.
h h h h The arytenoideus tranſverſus.
i i k. i i k The cricoarytenoidei poſtici, ariſing at *k k* from the cricoide cartilage.
l The cricoide cartilage.
m m The thyroide cartilage.
n n The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides.
o o The ends of the horns of the os hyoides.

FIGURE XIV.

Repreſents the next face of the muſcles, viz. of the arytenoidei obliqui, and tranſverſus, with the poſterior cricoarytenoidei, and the membrane which forms the ſides of the glottis betwixt the arytenoide cartilages and the epiglottis, after the ſalpingopharyngei, azygus of the uvula, and parts of the palatopharyngei which run over the ends of the elevators of the ſoft palate are taken away.

a a Denotes the place from whence the back part of the pharynx is cut off.
b c. b c The Euſtachian tubes covered with the membrane which forms and lines the inſide of the fauces. c c the orifices which open laterally in the poſterior foramina of the noſtrils.
d d The cavities of the noſtrils.
e e The lower oſſa ſpongioſa covered with the mucous membrane.
f The partition of the noſtrils.
g h i k l. g h i k l The elevators of the ſoft palate. h the tendinous part of its beginning. i the portion which is faſtened by a ſmall tendinous end to the tendinous membrane, which coming from the noſtrils, is ſpread thro' the upper ſide of the ſoft palate. k the part where the right and left elevators are continued one to the other. l the lower part forming a diſtinct portion.
m The tendinous membrane, which coming from the noſtrils, is ſpread thro' the upper ſide of the ſoft palate.
n n The circumflex muſcle of the ſoft palate. See Fig. 15. h h. and 16. i i.
o o The ſmall hooks of the pterygoide proceſſes. See Fig. 16. p p.
p q r s t. p q r s t The ſtylopharyngei. q the tendinous beginning, r the part where it is cut off from the ſtyloide proceſs. s the upper and leſs part, t the lower and larger part.
From u to v are cut off parts of the common ends of the ſtylopharyngei and palatopharyngei, which run through the back part of the membrane of the pharynx.
w w Parts of the palatopharyngei which paſs through the ſoft palate, under the ends of the elevators of the ſaid palate. Thoſe parts are here removed which paſs above the foreſaid ends, n n. Fig. 13.
x x Parts of the common ends of palatopharyngei, ſalpingopharyngei, and ſtylopharyngei, which deſcend through the ſides of the pharynx, are protuberant within the ſame, and form the poſterior arches which deſcend along the ſides of the fauces from the ſoft palate.
y z. y z Parts of the common ends of the ſtylopharyngei and palatopharyngei produced from the ſtylopharyngei; of which the part y runs within through the lateral ligament of the epiglottis, to the lateral edge of the epiglottis: z the part that is inſerted into the upper edge of the thyroide cartilage, betwixt its upper proceſs and the epiglottis.
a a The poſterior edges of the ſoft palate.
b The uvula.
c c The tonſils.
d The tongue.
e f The epiglottis. *f* The round body like a ligament.
g g The ſmall heads added to the arytenoide cartilages.
h h The arytenoide cartilages.
i k k The annular cartilage. *k k* the ſurface from whence ariſe the poſterior cricoarytenoidei.
l l m m The thyroide cartilage. *l* the inner part.
n n The ligaments which belong to the upper proceſſes of the thyroide cartilages from the ends of the horns of the os hyoides.
o o The ends of the os hyoides.

FIGURE XV.

Repreſents the next face of the muſcles, after the elevators of the ſoft palate, with the annular and arytenoide cartilages, and the additaments that are faſtened to them, are taken away.

a a The place from whence the back part of the pharynx is cut off.
b c d. b c d The Euſtachian tubes, as yet covered at b with the membrane that lines the inſide of the fauces, at c they are naked, that part of them having been covered by the elevators of the ſoft palate. d d the orifices by which they open laterally into the poſterior foramina of the noſtrils.
e e The lower oſſa ſpongioſa covered with the mucous membrane.
f f The cavities of the noſtrils.
g The partition of the noſtrils.
h i k. h i k The circumflex muſcle of the ſoft palate. i the tendon in which it ends. k the tendinous part of its beginning.
l The outer ſide of the pterygoide proceſs, which is alſo in the left ſide.
m m The ſmall hooks in thoſe proceſſes. See Fig. 16. p p.
n The aponeuroſes of the circumflex muſcles. See Fig. 16. m m n.
o o Parts of the upper conſtrictors of the pharynx cut off, which ariſe from the aponeuroſes of the circumflex muſcles of the ſoft palate.
p q q. p q q r Parts of the palatopharyngei which paſs through the ſoft palate under the ends of the elevators of the ſaid palate; at q q they paſs out from the aponeuroſes of the circumflexi; at r they are continued one to the other.
From s to s are cut off parts of the common ends of the ſtylopharyngei and palatopharyngei, which run through the back part of the membrane of the pharynx.

t t Parts of the common ends of the palatopharyngei, ſalpingopharyngei, and ſtylopharyngei, which deſcend through the ſides of the pharynx, are protuberant within the ſame, and form the poſterior arches which deſcend from the ſoft palate through the ſides of the fauces.

v w. v w Parts of the common ends of the ſtylopharyngei and palatopharyngei produced from the ſtylopharyngei; of which the part v runs inward through the lateral ligament of the epiglottis, at the lateral edge of the epiglottis; the part w is inſerted into the upper edge of the thyroide cartilage, betwixt its upper proceſs and the epiglottis.

x y z a b. x y z a b The ſtylopharyngei. y the tendinous beginning, cut off at z from the ſtyloide proceſs. a the upper and leſs part. b the lower and larger part.

c The uvula.

d d The poſterior margins of the ſoft palate.

e e The tonſils.

f The tongue.

g h i The epiglottis. h the round body like a ligament. i its origin from the inner part of the thyroide cartilage.

k k l m m n n o o The thyroide cartilage. k k the inner ſides. l the unequal protuberance. m m the lower proceſſes. n n the upper proceſſes. o o the protuberances in the external ſides at the roots of the upper proceſſes.

p p The ligaments which belong to the upper proceſſes of the thyroide cartilage from the ends of the horns of the os hyoides.

q q The ends of the horns of the os hyoides.

FIGURE XVI.

Follows immediately after the upper part of the laſt preceding figure, the portions of the upper conſtrictors of the pharynx, and the next adjacent parts of the palatopharyngei being here removed.

a a The place from whence the back part of the pharynx is cut off.

b c d. b c d The Euſtachian tubes, as yet covered at b d by the membrane which lines the inſide of the fauces, at c c they are naked in thoſe parts upon which lay the elevators of the ſoft palate. d d the orifices by which they open into the ſides of the poſterior foramina of the noſtrils.

e e The lower oſſa ſpongioſa covered with the mucous membrane.

f f The cavities of the noſtrils.

g The partition of the noſtrils covered with the mucous membrane.

h h The part from whence is cut the membrane which lines the inſide of the cavity of the noſtrils.

i k l m. i k l m n The circumflex muſcle of the ſoft palate. k the tendinous part of its beginning. l the tendon. m the aponeuroſis inſerted into the poſterior edge of the palate bones. n the conjunction of the aponeuroſes one with the other.

o p. o p The external ſides of the pterygoide proceſſes. p p their ſmall hooks.

FIGURE XVII.

Exhibits the open mouth and fauces, to ſhew the muſcles which appear to belong to the ſoft or moveable palate on the fore-ſide, after the inveſting membrane is taken off.

a a The gums.

b b The tonſils.

c c The poſterior edges of the ſoft palate, betwixt which is the uvula.

d d The fauces.

e The tongue.

f g. f g h i The conſtrictors of the iſthmus of the fauces, which in the part f paſs from the tongue to the palate before the tonſils. g the part that goes through the ſoft palate. h the place where they conjoin together, and afterwards ſmaller portions of them run into the uvula at i.

k k Parts of the palatopharyngei which run through the ſoft palate above the foreſaid conſtrictors, under the elevators of the ſoft palate.

FIGURE XVIII.

Exhibits the bottom of the foot in which are expreſſed all the aponeuroſes, muſcles, and ligaments, which lie immediately next to the common integuments.

A B C D E F G H The middle aponeuroſis of the ſole of the foot, on one ſide joined with the aponeuroſis that covers the abductor of the little toe, on the other ſide with that which covers the abductor of the great toe. B its origin from the protuberance of the calcaneum. C D E F G the five parts of it which belong to the toes, and which, at laſt, being ſplit at the ends, embrace the tendons, namely, of the long flexor of the great toe, and of the long and ſhort flexors of the other toes; from theſe portions alſo thin expanſions run out further through the body of fat, which is placed under the anterior ends of the metatarſal bones, at the roots of the toes; but theſe we have not added, to avoid obſcuring the figure. H the portion which joins with the aponeurſios that covers the great toe, and goes to the origin of the ſhort flexor of the great toe.

I K L M N The aponeuroſis that covers the abductor of the little toe. K its origin from the protuberance of the calcaneum. L a portion which it inſerts into the firſt head of the metatarſal bone of the little toe. M a portion that joins the middle aponeuroſis of the ſole of the foot, but is not always found to do ſo. N the portion which it gives to the beginnings of the ſmall flexor of the little toe and interoſſeous muſcle of the ſame toe.

O P The aponeuroſis that covers the abductor of the great toe. P its origin from the calcaneum.

Q R S The abductor of the great toe. R the tendon conjoined with the ligament S which belongs to the firſt bone of the great toe from the outer ſeſamoide bone, and, together with the ſaid ligament, is inſerted into that firſt bone.

T The ligament which ariſing from the outer ſeſamoide bone of the great toe belongs to the firſt bone of that toe whereinto it is inſerted, and conjoined with the tendon of the abductor of the great toe.

U V W Part of the ſhort flexor of the great toe belonging to the outer ſeſamoide bone, and inſerting itſelf into the ſaid ſeſamoide bone at V; at W joining itſelf to the tendon of the long abductor of the great toe. X part of the ſame flexor belonging to the inner ſeſamoide bone.

Y Z The common tendinous end of the ſhort flexor and abductor of the great toe with the tranſverſalis, inſerted into the inner ſeſamoide bone of that toe, and afterwards being conjoined with the ligament that goes to the firſt bone of the toe from the ſaid ſeſamoide bone, is therewith inſerted into that bone at Z.

a The ligament which ariſing from the inner ſeſamoide bone of the great toe, conjoins itſelf with the tendinous end of the abductor of the ſaid toe, and therewith belongs to the firſt bone of that toe into which it is inſerted.

æ æ b The tendon of the long flexor of the great toe, inſerted at b into the laſt bone of that toe.

c The ligament that confines the tendon of the long flexor of the great toe, at the joint of that toe, with its metatarſal bone.

d d Two ligaments which croſs each other, and confine the tendon of the long flexor of the great toe, where it runs along the bone of the firſt phalanx of that toe.

e f g h The lumbricales; e the firſt, f the ſecond, g the third, h the fourth.

i i i The tranſverſalis pedis.

k The ſecond interoſſeus of the firſt of the ſmall toes.

There is alſo a portion of the firſt interoſſeus of the other ſide to be ſeen betwixt the firſt lumbricalis and metatarſal bone of that toe with the bone or the firſt phalanx. This is too minute to admit of fixing a letter on it for the explanation; but Fig. 22. m. will help towards a better knowledge of it.

l The ſecond interoſſeus of the ſecond of the ſmall toes.

There is alſo a part of the firſt interoſſeus of this toe, betwixt the bone of the firſt phalanx and the ſecond lumbricalis. See Fig. 22. s.

m m The ſecond interoſſeus of the third of the ſmall toes.

There is alſo part of the firſt interoſſeus of this toe betwixt the third lumbricalis, the metatarſal bone, and the bone of the firſt phalanx of this toe. See Fig. 22. y.

n The ſhort flexor of the toes.

o The interoſſeus of the little toe; part of which is alſo preſent betwixt the fourth lumbricalis and bone of the firſt phalanx of this toe. See Fig. 22. e.

p The ſhort flexor of the little toe.

q r The abductor of the little toe. r the tendon inſerted into the bone of the firſt phalanx of the little toe.

s, as in this toe, ſo in the reſt of the ſmall toes, are repreſented the ligaments which confine the tendons of the long and ſhort flexors as they paſs near the anterior heads of the metatarſal bones.

t, as in this, ſo in the other ſmall toes, are exhibited the ligaments which confine the tendons of the long and ſhort flexors, about the middle of the bones of the firſt phalanx.

u, as in this firſt, ſo in the other ſmall toes, are ſeen the ligaments which confine the tendons of the long and ſhort flexors, about the bones of the ſecond internodes, or phalanx.

v w w The tendon of the ſhort flexor of the toes; w w the horns of it which belong to the bone of the ſecond order. By the ſide of this laſt tendon, next the great toe, is the tendon of the long flexor. The ſame are alſo in the reſt of the ſmall toes.

x One of the tendons of the long flexor of the toes inſerted into the third bone. A portion of the ſame tendon is alſo ſeen by the ſide of the ſhort flexor tendon, v, which lies next the great toe; as alſo betwixt the horns w w of that tendon. See Fig. 19. The ſame is likewiſe to be underſtood of the other ſmall toes.

FIGURE XIX.

Repreſents the firſt order of the muſcles in the ſole of the foot, after the aponeuroſes and moſt of the ligaments in the preceding figure are taken away.

A B C D E The abductor of the little toe compoſed of two parts A and B. C D the origin from the protuberance of the calcaneum, whence it is outwardly tendinous in the part where it adheres to, and is covered by, the aponeuroſis plantaris. E the tendon inſerted into the firſt bone of the little toe.

F G H I The abductor of the great toe. G its origin from the protuberance of the calcaneum, whence it is outwardly tendinous, and coheres in that part for a conſiderable length with the aponeuroſis that covers it. H the tendon which at laſt is conjoined with the ligament that belongs to the firſt bone of the great toe from the outer ſeſamoide bone of that toe, and is inſerted with the ſame ligament into that firſt bone.

K The ligament which ariſing from the outer ſeſamoide bone of the great toe, is inſerted into the firſt bone of that toe, and is conjoined with the tendon of the abductor of the great toe.

L M N O P Q R S T U V The ſhort flexor of the toes. M its origin from the protuberance of the calcaneum, whence it is outwardly tendinous in the part where it coheres for a conſiderable length from its origin with the middle aponeuroſis plantaris, ſo that it ſeems in a manner to ariſe from thence. N the portion belonging to the firſt of the ſmall toes: O its tendon which at laſt ends in the two horns P Q. R the portion belonging to the ſecond of the ſmall toes; S its tendon divided in the ſame manner towards its end into two horns. T the portion belonging to the third toe: U its tendon, in like manner ſplit, at its end, into two horns. V the tendon belonging to the fourth toe, at laſt, like the reſt, divided into two horns.

W A tendinous portion which ariſes from the lower protuberance of the cubiform bone, and ends in the origin of the ſhort flexor (a) of the little toe,

its interoſſeous muſcle Z, and in the ſecond interoſſeus of the third of the ſmall toes X.

X Y The ſecond interoſſeous muſcle of the third of the ſmall toes. Y the tendinous end inſerted into the firſt bone of that toe.

There is alſo a portion of the firſt interoſſeus of this toe, on the other ſide betwixt its firſt bone, the metatarſal bone, and the third lumbricalis. See Fig. 22. y.

Z The interoſſeous muſcle of the little toe whoſe end appears betwixt the fourth lumbricalis and the firſt bone of the ſaid little toe. See Fig. 22. *e*.

a b The ſhort flexor of the little toe. b its tendinous end inſerted into the firſt bone of the little toe.

c d e f The lumbricales: c the fourth. d the third. e the ſecond f the firſt. See Fig. 20. Z X. W S.

g g h The tranſverſalis muſcle of the foot, h its tendinous origin. See Fig. 21. f.

i The ſecond interoſſeus of the ſecond of the ſmall toes.

Part of the firſt interoſſeus is alſo in the other ſide, betwixt the ſecond lumbricalis, the metatarſal bone and firſt bone of this toe. See Fig. 22. s.

k The ſecond interoſſeus of the firſt of the ſmall toes.

Part of the firſt is alſo on the other ſide of this toe, betwixt the firſt lumbricalis, the metatarſal bone, and bone of the firſt phalanx of this toe. See Fig. 22. m

l m One of the tendons of the long flexor of the toes, inſerted into the third bone m. Part of this tendon of the long flexor is alſo ſeen above, on that ſide of the tendon of the ſhort flexor which is next the great toe. The like tendon is alſo in the other ſmall toes. See Fig. 20. N O P Q.

n o The tendon of the long flexor of the great toe, inſerted into the laſt bone of that toe, o.

p The abductor of the great toe.

q q Part of the ſhort flexor of the great toe, belonging to the inner ſeſamoide bone of that toe.

r s t The common tendinous end of the ſhort flexor and abductor of the great toe, with the tranſverſalis pedis, inſerted at s into the inner ſeſamoide bone, at t conjoined with the ligament which belongs to the firſt bone of the toe from the inner ſeſamoide bone, and inſerted with that ligament into the ſaid bone.

u The ligament which belonging to the firſt bone of the great toe from the inner ſeſamoide bone, joins itſelf with that part of the common end of the ſhort flexor and adductor of the great toe, with the tranſverſalis pedis, which belongs to the adductor.

v Part of the portion which the middle aponeuroſis plantaris gives to the origin of the ſhort flexor of the great toe. See Fig. 18. H.

w x y Part of the ſhort flexor of the great toe, belonging to the outer ſeſamoide bone of that toe. x the part where it joins the tendon of the abductor of the gerat toe, y its inſertion into the ſeſamoide bone.

FIGURE XX.

Exhibits the ſecond order of the muſcles in the ſole of the foot, after the abductor of the little toe, moſt part of the abductor of the great toe, and the ſhort flexor of the toes are taken away.

A B The tendon of the long flexor of the toes: B the knot or induration where this tendon rubs againſt the calcaneum. C D E F G the muſcular head which joins the long flexor of the toes in the ſole of the foot, conſiſting of two portions diſtinct from the beginning C and D. The one part C ariſes from the calcaneum at E. The other part D, begins by a thin tendon F, ariſing from the calcaneum at G. H the portion that joins or continues the tendon of the long flexor of the toes to the tendon of the long flexor of the great toe. I K L M the four tendons into which it divides, with the head that joins it; which tendons belong to the four ſmall toes, and are in a manner ſplit longitudinally at N O P Q, being inſerted into the third or laſt bones, as at R.

S T V The firſt lumbricalis, T its origin from the firſt and ſecond tendon of the long flexor of the toes. V its tendon: from whence the tendons of the reſt may be underſtood.

W The ſecond lumbricalis.

X Y The third lumbricalis, Y its origin from the ſecond and third tendon of the long flexor of the toes.

Z a The fourth lumbricalis, a its origin from the third and fourth tendon of the long flexor of the toes.

b c d e The tendon of the long flexor of the great toe, increaſed at c by a portion received from the tendon of the long flexor of the toes, is then in a manner ſplit longitudinally at d, and is at laſt inſerted at e into the laſt bone of the great toe.

f g h The tendon of the tibialis poſticus. f its knot or turning which lies upon the head of the aſtragalus. g its inſertion below into the navicular bone. h its inſertion into the large cuneiform bone.

i k The two ends of the tendon of the tibialis anticus, one of which i is inſerted into the large cuneiform bone, the other k belongs to the metatarſal bone of the great toe.

l Part of the portion which the middle aponeuroſis plantaris gives to the beginnings of the ſhort flexor of the great toe. See Fig. 18. H.

m n The tendon of the abductor of the great toe cut off. n the end by which it joins the ligament from the outer ſeſamoide bone to the firſt internode of the great toe, in which bone it is inſerted.

o The ligament, which belongs to the firſt bone of the toe from its outer ſeſamoide bone conjoined with the end of the tendon of the abductor of the great toe.

p q r Part of the ſhort flexor of the great toe, which belongs to the outer ſeſamoide bone of the great toe. q the part where it joins the tendon of the abductor of the great toe. r its inſertion in the outer ſeſamoide bone.

s s Part of the ſhort flexor of the great toe, which belongs to the inner ſeſamoide bone of the great toe.

t t The adductor of the great toe.

u v w The common tendinous end of the ſhort flexor and adductor of the great toe, with the tranſverſalis pedis: v its inſertion into the inner ſeſamoide bone of the great toe, w its conjunction with the ligament which belongs to the firſt bone of the great toe from its inner ſeſamoide bone, and is inſerted with that ligament into the ſaid firſt bone of the great toe.

x The ligament which belongs to the firſt bone of the great toe from its inner ſeſamoide bone, and is conjoined with the tendinous end of the adductor of the great toe.

y The tendon of the peroneus brevis.

z a b The tendon of the long peroneus. a the knot or turning where it paſſes by a protuberance of the calcaneum. b another knot where it bends to the cuboide bone.

c d e The ligament which ariſing from the calcaneum d, inſerts itſelf into the eminence of the os cuboides, at which the tendon of the long peroneus bends itſelf. e its inſertion into the ſaid eminence.

f The tendinous part which ariſes from the bottom of the cuboide protuberance, and ends in the origin of the ſhort flexor and interoſſeus of the little toe, and ſecond interoſſeus of the third of the ſmall toes. g an excurſion of the ligament marked c, which joining itſelf to the tendinous part f, forms therewith the common tendinous part b, which joins the origins of the ſhort flexor and interoſſeus of the little toe, and both the interoſſei of the third of the ſmall toes, with that of the abductor of the great toe.

h i The ſhort flexor of the little toe, i its inſertion into the firſt bone of the little toe by its tendinous end.

k The interoſſeus of the little toe. Its tendinous end, which is inſerted into the firſt bone of this toe, appears betwixt the fourth lumbricalis and the firſt bone of this toe: See Fig. 22. *e*.

l m The ſecond interoſſeus of the third of the ſmall toes. m its tendinous end inſerted into the firſt bone of that toe.

n The firſt interoſſeus of the third of the ſmall toes, the tendinous end of which is inſerted into the bone of the firſt order of the ſame toe, and may be ſeen betwixt the third lumbricalis of the metatarſal bone, and the firſt internode of this toe. See Fig. 22. y.

o The tendinous end of the ſecond interoſſeus of the ſecond of the ſmall toes, inſerted into the firſt internode of the ſame toe.

On the other ſide of this toe lies the tendinous end of its firſt interoſſeus, betwixt the firſt lumbricalis, metatarſal bone, and firſt internode of this toe. See Fig. 22 s.

p The tendinous end of the ſecond interoſſeus of the firſt of the ſmall toes, inſerted into the firſt bone of the ſaid toe.

On the other ſide of this toe likewiſe is the tendinous end of the firſt interoſſeus betwixt the firſt lumbricalis, the metatarſal bone, and the firſt internode of this toe. See Fig. 22. m.

FIGURE XXI.

Repreſents the third order of the muſcles of the foot, having firſt taken away the muſcular head which joins the long flexor of the toes in the ſole of the foot, the tendons of the long flexor of the toes, the lumbricales and tendon of the long flexor of the great toe.

A the tendon of the ſhort peroneus.

B C D The tendon of the long peroneus. C its knot or turning where it is applied to the calcaneum. D the other knot where it bends to the cuboide bone. betwixt r and l are the portions inſerted into the large cuneiform bone. See Fig. 22. g h.

E F G H I The tendon of the tibialis poſticus, cut off at E. F the knot or turning by which it is applied to the head of the aſtragalus. G its inſertion below into the navicular bone. H its inſertion into the large cuneiform bone. I the portion which it inſerts to the third cuneiform bone, and then runs out to the ſecond and third metatarſal bone, giving a portion to the ſhort flexor of the great toe.

K L M M The ligament which ariſing from the calcaneum belongs to the cuboide bone, wherein it is inſerted at M M.

N The tendinous part which ariſes from the bottom of the protuberance of the cuboide bone, and ends in the beginning of the ſhort flexor of the little toe, the interoſſeus of that toes and the ſecond interoſſeus of the third of the ſmall toes. O the excurſion of the ligament marked K, which joining the tendinous part N, forms therewith the common tendinous part P, which joins the origins of the ſhort flexor and interoſſeus of the little toe, both the interoſſei of the third of the ſmall toes, and of the adductor the of great toe.

Q R The ſhort flexor of the little toe, inſerted by its tendinous end R into the firſt bone of the ſaid little toe.

S The interoſſeus of the little toe, whoſe tendinous end, near T, is inſerted into the bone of the firſt order.

U V The ſecond interoſſeus of the third of the ſmall toes. V its tendinous end inſerted into the bone of the firſt order.

W X The firſt interoſſeus of the third of the ſmall toes. X its tendinous end inſerted into the bone of the firſt order.

Y Z The ſecond interoſſeus of the ſecond of the ſmall toes. Z its tendinous end inſerted into the bone of the firſt order.

a b The firſt interoſſeus of the ſecond of the ſmall toes. b its tendinous end inſerted into the bone of the firſt order.

c d The ſecond interoſſeus of the firſt of the ſmall toes. d its tendon inſerted into the bone of the firſt order.

e The tendon of the firſt interoſſeus of the firſt of the ſmall toes, inſerted into the bone of the firſt order.

f g h i The tranſverſalis muſcle of the foot, g the part which ariſes from the capſule inveſting the joint of the third of the ſmall toes with its metatarſal

bone. h its tendinous origin. i its extremity by which it joins the common tendinous end of the adductor and ſhort flexor of the great toe.

k l m n The adductor of the great toe. l part of it in ſome meaſure divided from the reſt. m the tendinous part of its origin. n its tendinous end.

o p q r s Part of the ſhort flexor of the great toe which belongs to the inner ſeſamoide bone of that toe. p the tendon ariſing from the calcaneum q, part of which tendon goes into the beginning of this flexor. r the tendinous beginning of this part of the ſhort flexor ariſing from the middle of the cuneiform bone. s the origin of the tendinous end.

t u v The common tendinous end of the ſhort flexor and adductor of the great toe with the tranſverſalis pedis: u its inſertion into the inner ſeſamoide bone of the great toe. v its conjunction with the ligament which belongs to the firſt bone of the great toe from the inner ſeſamoide bone being inſerted into the ſaid firſt bone.

w The ligament which ariſes from the inner ſeſamoide bone of the great toe, and is inſerted into the firſt bone of that toe conjoined with the tendon of the adductor.

x Part of that portion of the middle aponeuroſis plantaris which goes into the origin of both parts of the ſhort flexor of the great toe.

y z *a* Part of the ſhort flexor of the great toe that belongs to the outer ſeſamoide bone of that toe, at z it joins the tendon of the abductor of the great toe: *a* its inſertion into the outer ſeſamoide bone of the great toe.

b c d The abductor of the great toe cut off, conjoined by its end *d* with the ligament which goes from the outer ſeſamoide bone of the great toe to its firſt internode in which they are inſerted together.

e The ligament which belongs to the bone of the firſt phalanx of the great toe from the outer ſeſamoide bone, and is conjoined with the tendon of the abductor of the great toe.

f g The two portions of the end of the tendon of the tibialis anticus: of which one, *f*, is inſerted into the large cuneiform bone: the other, *g*, belongs to the metatarſal bone of the great toe.

FIGURE XXII.

Exhibits the fourth and laſt order of the muſcles in the ſole of the foot, in order to which are taken away the tendon of the tibialis poſticus, the ligament which ariſing from the calcaneum belongs to the cuboide bone, the ſhort flexor of the little toe, the tranſverſalis of the foot, the abductor of the great toe, the ſhort flexor of the great toe, the ligaments which go from the ſeſamoide bones to the firſt phalanx of the great toe, and the end of the abductor of the great toe.

a The tendon of the ſhort peroneus.

b c d e f g h i The tendon of the long peroneus. c the knot or turning which is applied to the calcaneum. d the more conſiderable knot where this tendon bends at the eminence of the cubiform bone. e the end inſerted into the metatarſal bone of the great toe. f a portion going off from the tendon, and dividing into two parts g h, inſerted into the great cuneiform bone. i the portion going off the tendon, and inſerted into the ſecond metatarſal bone.

k l The two ends of the tendon of the tibialis anticus, the one of which, k, is inſerted into the large cuboide bone, the other, l, into the metatarſal bone of the great toe.

m n o The firſt interoſſeus of the firſt of the ſmall toes. n its origin from the ſecond metatarſal bone. o the tendon inſerted into the bone of the firſt order.

p q r The ſecond interoſſeus of the firſt of the ſmall toes q the tendinous beginning ariſing from the ſecond and third of the metatarſal bones. r the tendon inſerted into the bone of the firſt phalanx.

s t u The firſt interoſſeus of the ſecond of the ſmall toes. t its origin from the ſecond metatarſal bone. u the tendon inſerted into the bone of the firſt phalanx.

v w x The ſecond interoſſeus of the ſecond of the ſmall toes. x its origin from the third metatarſal bone. x the tendon inſerted into the bone of the firſt phalanx.

y z *a* The firſt interoſſeus of the third of the ſmall toes. z its origin from the fourth metatarſal bone. *a* the tendon inſerted into the bone of the firſt phalanx.

b c d The ſecond interoſſeus of the third of the ſmall toes. *c* its origin from the fourth metatarſal bone. *d* the tendon inſerted into the bone of the firſt phalanx.

e f g The interoſſeus of the little toe. *f* its origin from the fifth metatarſal bone. *g* the tendon inſerted into the bone of the firſt phalanx.

FIGURE XXIII.

Repreſents the articulation of the bones of the foot viewed from its bottom. This figure is added, that from thence may be underſtood the parts of the bones expreſſed in the other preceding figures of the foot; and it was the more neceſſary to add this view, as it could not be given in the figures of the ſkeletons.

A B C D E The os calcis. B the protuberance which forms the heel. C an eminence incruſted with a ſmooth cartilage which ſuſtains the tendon of the long peroneus. D an eminence, from the bottom of which ariſes the ligament K. Fig. 21. E a ſinus or groove, through which paſſes the tendon of the long flexor of the great toe.

F G H The talus or aſtragalus. G H the lower head incruſted with a ſmooth cartilage, part of which head, G, belongs to the juncture with the calcaneum, but the part H is articulated by a ligament which paſſes under this head from the calcaneum to the navicular bone.

I K L The cuboide bone. K an eminence, by the ſide of which paſſes the tendon of the long peroneus. L a riſing tubercle incruſted with a ſmooth cartilage, on which lies the moſt conſiderable knot or turning of the ſaid tendon.

M N The navicular bone. N a riſing tubercle, into which is inſerted the tendon of the tibialis poſticus.

O P Q The great cuneiform bone. P an eminence, into which is inſerted the tendon of the tibialis poſticus. Q an eminence, into which is inſerted part of the tendon of the tibialis anticus, k, Fig. 22.

R The leſs cuneiform bone.

S T The middle cuneiform bone. T the protuberance from whence ariſes the tendinous beginning of the ſhort flexor of the great toe, r, Fig. 21.

U V W X The firſt bone of the metatarſus, belonging to the thumb. V the place into which is inſerted part of the tendon of the tibialis anticus, l, Fig. 22. W the ſurface into which is inſerted the tendon of the long peroneus, X the anterior head incruſted with a ſmooth cartilage.

Y Z The ſeſamoidal bones placed at the joint of the great toe with its metatarſal bone. Y the outer, Z the inner of them.

a f. b f. c f. d e f The metatarſal bones of the ſmall toes. a that of the firſt, b of the ſecond, c of the third, d e of the fourth, of which e is a riſing protuberance, f f f f the anterior heads incruſted with a ſmooth cartilage.

g h i. k l m The bones of the firſt order, g that of the great toe, h i k l m, thoſe of the ſmall toes, m the round head incruſted with a ſmooth cartilage; and the like is in the other bones of the toes.

n o p q r The bones of the ſecond order of the ſmall toes. r the round head incruſted with a ſmooth cartilage; as are alſo the other bones.

s t The laſt bone of the great toe; t the protuberance at the end; the like of which is alſo in the laſt or third bones of the ſmall toes.

u v w x The third or laſt bones of the ſmall toes.

FIGURE XXIV.

Gives an internal view of the muſcles ſeated under the ſternum, with the next adhering parts of the ribs or thorax.

a b c d e f g h i k l m n o p q r s t u v w The triangularis muſcle of the ſternum. a the head ariſing from the third rib, with a tendinous beginning b; c the origin from the cartilaginous part of the rib, d from the bony part. e the head ariſing from the fourth rib, with a tendinous beginning f; g the origin from the bony part of the rib, h from the cartilaginous part. i the head ariſing from the fifth rib, by a tendinous origin k; l the origin from the cartilaginous part of the rib, m from the bony part. n the common tendinous part of the two upper heads, which in ſome bodies is conjoined with the tendinous part of the lower head o, but in others is ſeparate; it is inſerted into the extreme cartilage p of the fourth rib, and into the os pectoris q betwixt the cartilaginous ends of the fourth and fifth rib, into the end of the cartilage of the fifth rib r, into the os pectoris s betwixt the extreme cartilages of the fifth and ſixth ribs, into the end of the cartilage of the ſixth rib t, and of the ſeventh u, into the bone of the enſiform cartilage v, and into the enſiform cartilage itſelf w.

x y z *a* Is a ſmall muſcle here correſponding to the triangularis ſterni, and found in ſome bodies. y its origin from the bony part of the ſecond rib, and from the cartilaginous part z. *a* its tendinous end inſerted into the cartilage of the third rib.

b c d e f g h The ribs: *b* the ſecond, *c* the third, *d* the fourth, *e* the fifth, *f* the ſixth, *g* the ſeventh, *h* the eighth. *i k l m m n n o o p* the cartilaginous ends of thoſe ribs.

q r ſ t The os pectoris. *q* the firſt and uppermoſt bone; *r* the ſecond which is in the middle; *ſ* the third and loweſt, which belongs to the enſiform cartilage. *t* the enſiform or pointed cartilage itſelf. We deſignedly paſs by the other particulars of this os pectoris, as well becauſe they do not relate to the preſent purpoſe, as becauſe they will be explained in our tables of the bones.